



Department of Archæology & Historical Research  
Jaipur State



**EXCAVATIONS AT RAIRH**  
DURING  
SAMVAT YEARS 1995 & 1996 (1938-39 & 1939-40 A.D.)  
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COMPLIMENTARY

Price Rupee One

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## CHAPTER I.

### Introductory and General Remarks.

This report, the third of the series published by the Archaeological Department of the Jaipur State, embodies the results of two successive field seasons' work at Rairh. The operations during the year 1938-39 were conducted by the late Rai Bahadur Daya Ram Sahni, M.A., C.I.E., Director of Archaeology and Historical Research, Jaipur State, whose sudden demise on the 7th of March, 1939, besides being the cause of profound grief and pain to his numerous friends and well-wishers, took away from the field of archaeological research a scholar of great attainments and wide reputation. After his death archaeological activities in the State came to a standstill for a period of over six months till the appointment of the writer as the Superintendent of Archaeology on the 15th of September, 1939. The following year's work was carried out under my superintendence and in compiling this report, I have ventured to deviate a bit from the previous reports by inserting numerous line drawings of pottery, tools, beads, etc., as these are likely to prove of utmost help in the comparative study of objects found at other sites. The collection of punch-marked silver and other copper coins discovered at Rairh are more than of local importance and deserve a separate monograph. In dealing with the punch-marked coins within the compass of this short volume I have attempted to classify and include drawings of all the groups of symbols found on the coins and hope that in the absence of an exhaustive memoir such a classification will be of some help to scholars interested in the study of punch-marked coins.

It will be a matter of great satisfaction if this report on the excavations at Rairh will have succeeded in creating further interest in the pursuit of archaeological research in the Jaipur State, the continuation of which itself is a tribute to the Government of His Highness the Maharaja Sahib Bahadur and a great contribution to the unfolding of the ancient history of our motherland by keeping pace with the progress made in British India and other Indian States.

Within the bounds of the Jaipur State are a large number of unexplored mounds and many of them have perhaps never been visited by any archaeologist. Rairh itself came to be known as a result of a chance discovery of silver punch-marked coins by a peasant boy. Nagar,<sup>1</sup>

<sup>1</sup> Visited by Carlyle in the year 1871 has never since been examined by any archaeologist although in his report, Carlyle states to have picked up over 6,000 coins including those of the Malavas. Cunningham's Report, Vol. VI, p. 173.

in Uniara Thikana, and Harash near Sikar are the sites which await the systematic use of the spade. Besides mounds, there are a very large number of standing monuments in immediate need of conservation and it is hoped that the passing of the Ancient Monuments Act, now under consideration, will set matters on a better footing.

The excavations at Bairat, Naliasar-Sambhar and Rairh have yielded results of far-reaching character and offer enough encouragement for brighter archæological discoveries in future. That the valley of Bairat was inhabited during the pre-historic times<sup>1</sup> is established by the discovery of chert flakes and cores and the sites of Naliasar-Sambhar and Rairh are amongst the earliest historic sites in India going back to about the 3rd century B.C. It would, therefore, be no surprise if eastward traces of the Indus culture are some day brought to light within the bounds of Rajputana from where the Mohen-jo-darians procured several of their semi-precious stones, copper etc. The unexplored regions<sup>2</sup> of the Jaipur State offer an unrivalled field to the spade of the archæologist and it is hoped that coming years will unravel many new discoveries.

I am deeply indebted to Rai Bahadur Pandit Amar Nath Atal, M.A., Finance Minister, for the guidance received from time to time in the discharge of my duties. His personal interest in archæology was a source of great encouragement. My thanks are also due to Rao Bahadur K. N. Dikshit, Director-General of Archæology in India, for his valuable suggestions. I cannot pass without expressing my thanks to Mr. S. K. Dikshit, M.A., a Research Scholar, deputed by the Director-General of Archæology in India, for training under me in Archæological Excavations, who has contributed a note on the coins and seals found at Rairh. He is a keen student of Archæology and worked with such devotion and zeal that in a very short time he picked up the principles and methods of scientific excavations and was a source of immense help to me in the field. My staff of four assistants and four peons discharged their duties carefully, diligently and harmoniously for which I am glad to record my appreciation.

In the course of excavations over 4,000 antiquities were recovered in addition to 3,075 silver punch-marked coins and several hundred copper coins.

During the period the work was in progress over 200 labourers were engaged per day. The scale of wages paid was annas four to diggers and pickers, annas three to adult carriers and annas two to boys and girls. The total expenditure, amounting to Rs. 6,000/-, included a few hundred expended on the purchase of show-cases, racks and a small safe for keeping valuable antiquities.

*General Remarks.*—Rairh (Lat. 26° 20' N.; Long. 76° 10' E.) is a

<sup>1</sup> Excavations at Bairat by D. R. Sahni, p. 40.

small village consisting barely of about 20 houses in Thikana Bhartala, Tehsil Bonli, Jaipur State. This village, from which the ruins derive their name, occupies the western portion of the site and boasts of two temples the pealing of the bells of which alone break the monotony of the countryside in the mornings and evenings. One of these is a comparatively modern structure but the other with its ornamental and pointed *Shikhara* would seem to be a work of about the 18th century A.D. Both these temples are devoted to the worship of Vishnu. The village itself presents a deserted appearance as most of the stone buildings on the top, once inhabited by the *Thakurs* of the locality, are in perfect ruins now. The series of rolling mounds which extend eastwards from the village are separated from it by a ravine now used as cart-track in which a well and a few ruined stone platforms are situated. Fragments of crudely sculptured stones designated as the "Goddess" or 'Mata' lie on these platforms in a neglected condition, and some of these appear to be *Sati* stones without inscription.

The mounds which have been under the plough from time immemorial lie in the midst of an alluvial plain bounded on the east, south and west by small ranges of hills and a few isolated spurs on the north and traversed by a rivulet known as Dhil Nadi, an affluent of the river Banas, which flows during the rainy season discharging itself into the Gopalpura Bund; some six miles south of Rairh. The fortress of Bonli can be seen perched on the top of the hills to the east and in the distant south can be seen the Gopalpura hills. The fertility of the soil depends on annual rainfall which in normal times is about 25 inches but failure of monsoons for the last three years have reduced this plain into a veritable waste and this area, like other vast tracts in the Jaipur State, has been in the grip of a severe famine.

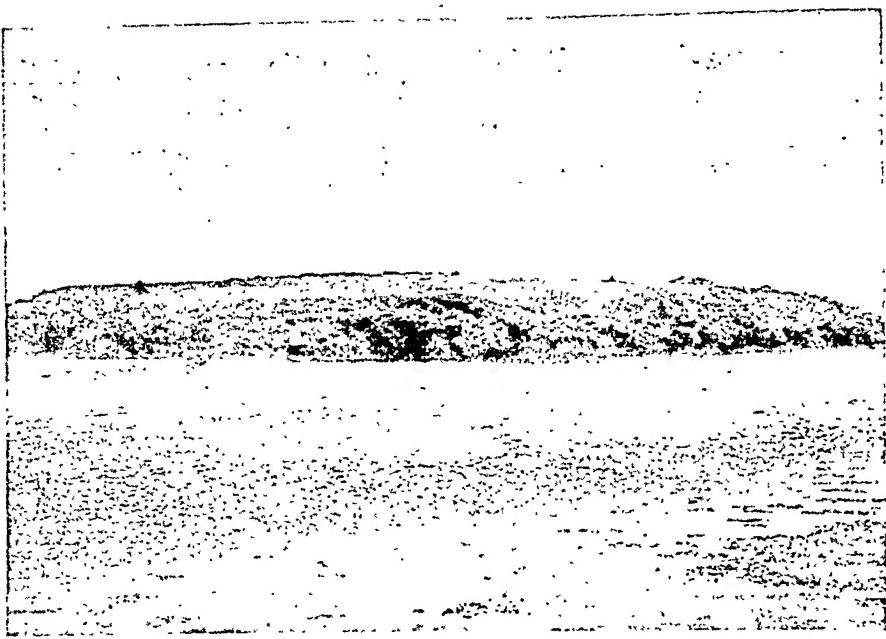
The mounds are situated about 15 miles south-east of the Railway Station Nawai on the Jaipur State Railway running from Jaipur to Sawai Madhopur in a part of the country not easily accessible and entirely devoid of any charm. Out of the total distance of 56 miles from Jaipur, the first 41 miles may be covered either by rail or a good metalled road to Nawai on the Jaipur-Tonk Road and the rest over rough country tracks passing through Jhalai and the villages of Karira and Neota. The journey from Karira onwards is a test for any car on sandy tracts and *Nallas*. The site can also be reached from the village Karerha on the fifth mile of the Kothun-Lalsote Fair Weather Road passing through the villages of Ram Nagar, Nayagaon etc., but this route is equally difficult to negotiate.

The mounds, bestrewn with tiny bits of potsherds, brick-bats, iron slag etc., measure over 2500 feet from east to west and about 1800 feet in width rising to a height of about 15 to 25 feet above the bed of the river Dhil, a large bend of which surrounds the mounds on three sides

except the west. The presence of large quantities of slag in the south-easterly direction beyond the river seem to indicate that the area covered by the town was more than its present dimensions and the river took a somewhat different course then. A tank of fairly wide dimensions situated at the foot of the village occupies the western extremity of the ruins. The only portion of the mounds that seems to have been least disturbed is the one on which the modern village is built; the rest had been reduced to plain ground and tilled for ages. Brick walls can be seen in the village streets but excavations in this part are well-nigh impossible on account of modern houses built over with materials mostly dug out from the mound. To the immediate east of the village a small area that admitted of digging was tapped (Frontispiece, Pl. I., Trench L.) and interesting results obtained. The larger mound under cultivation, is roughly divided into three portions by ravines running east to west caused by rain-water discharging into the river. These ravines are now used as cart-tracks for bullock carts from the modern village of Rairh to the villages across the river, e.g., Dungri, Bapai etc.

*Discovery.*—As has been remarked above, the archæological importance of Rairh came to be known as a result of a mere incidental and fortunate discovery of an earthenware vessel containing 326 silver punch-marked coins by a peasant boy named Sonia, who during the rainy season of 1936-37 was engaged in playing a village game known as "digging the wells" on the banks of the then flooded Dhil Nadi touching the edge of the ancient mound. It was this discovery that attracted the attention of the Jaipur Government and the site which had never before been visited by any archæologist came under investigation. The late Rai Bahadur Daya Ram Sahni, M.A., C.I.E., Director of Archæology and Historical Research, conducted preliminary examination of the site for a period of five days in the month of June, 1938, and brought to light some structural remains consisting of a series of parallel walls built of large-sized bricks (about 2 feet in length and 10 inches by  $3\frac{1}{2}$  inches thick) and a number of well-like structures composed of pottery rings fitted one above another. The portable antiquities unearthed included pottery vessels, a few clay figurines of mother-goddess, a fragment of polished chunar sandstone bowl, typical of the Maurya period, and a rectangular copper coin (Pl. XXVI, 7) bearing on one side a well-preserved inscription in Brahmi characters of about the 3rd century B.C. This last find is indeed one of the most interesting brought to light inasmuch as it introduces a hitherto unknown series of 'Senāpati' coins. The inscription on the obverse may be rendered "of the Commander-in-Chief Vachhaghosa" with the well-known Malava symbol consisting of the "Cross and Balls" above the legend. The reverse shows a bull standing on a standard and a motif resembling the *taurine* symbol usually found on punch-marked and other early coins.

These encouraging results led to systematic excavation of the site in the following years. The operations were commenced on the 11th November, 1938, and continued till the 22nd February, 1939, and resumed on the 11th January, 1940 and concluded on the 1st of March, 1940.



*General view of the mounds before excavation, looking north-east.*

## CHAPTER II.

### Excavations.

In all sixteen trenches (Pl. I, frontispiece), designated alphabetically, were dug on different parts of the ruins including one on the eastern slope of the village of Rairh. The excavations were mostly confined towards the slopes of the mounds, leaving the central portion which on account of being kept under cultivation throughout the year has a highly disturbed surface and, as such, least likely to yield interesting results, and embraced an area of about 26,500 square yards.

No structural remains of any pretension have been unearthed at Rairh and it would be no exaggeration to say that no palatial buildings existed on this site. Brick remains that have been laid bare are few and far between and yet no signs of annihilation of such remains seem to have taken place at the hands of brick-hunters. Such brick structures as have been brought to light were not more than a couple of feet below the surface of the mound and are mostly confined to a single category of buildings, *e.g.*, the foundations of series of parallel walls (Pl. II, a, b, d and Pl. IV, a). That structures of this type alone would have survived while everything else was swept off seems improbable. On the contrary extreme scarcity of brick buildings suggest that while bricks were manufactured and employed for the construction of special kind of structures, the majority of the houses were built of mud walls, of which no traces

have survived. This assumption is supported by the fact that during the course of excavations thick layers of *moraindi*<sup>1</sup> clay were invariably met with about the floor levels of the existing structures lending support to the view that *moraindi* was given preference to ordinary mud for raising walls and laying floors. Another bit of evidence that mud was employed for construction purposes is furnished by furnaces of which numerous traces were noticed all over the area. With a single exception all furnaces laid bare were composed of mud walls and these on account of excessive heat to which their interiors were exposed had partly burnt to dull red colour.

A few pottery models of houses or shrines (Pl. XXII, 3, 4 & 5), fragments of roof tiles and pottery finials (Pl. VII, 46) are the only vestiges found that throw some light on the type of houses. Slanting tiled roofs supported on gabled walls were decorated with finials on the ridge and one or more door-ways gave access to the interior of the house which was enclosed in a walled-in enclosure. The rectangular pottery tiles that covered the roof are plain on one side and fluted on the other. Each tile is provided with a groove on one side of its length into which fitted the ridge of the next tile. Mud mortar was universally employed and mud-plaster mixed with straw was employed for covering the walls is shown by the discovery of small patches of plaster which had burnt to terracotta, probably on account of some conflagration suffered by certain houses. Bricks were laid as headers and stretchers alternately but on account of varying sizes employed, the joints are neither neat nor regular. Besides these few remarks about house-building, it is not possible to say in detail about town-planning, architectural features, etc., but the excavations on this site have more than compensated for the scarcity of structural remains by the discovery of five hoards of 3,075 silver punch-marked coins, several hundred copper coins and over four thousand other portable antiquities.

The excavations have also revealed the presence of three periods of occupation. The top-most period is represented by three small houses (Pl. V, Tr. N, 40; Pl. VI, Tr. A, 5; Tr. C, 7), series of parallel walls, and fragments of drains and pavements; the second period, by a double-roomed dwelling (Pl. IV, b) and a section of a brick drain (Pl. IV, d) that has been laid bare in a deep cutting in the southern slope of Trench B, and, the earliest period is represented merely by a few fragmentary jars and the presence of a layer consisting of ashes and potsherds immediately above the level of the virgin soil (Pl. V, D. D. 1 & 2). The peculiar features of the site are the series of parallel walls (Pl. II, a, b, d and Pl. IV, a) and well-like ring-pits composed of pottery rings fitted one above the other (Pl. II, a; Pl. III, a-e). In the entire area excavated

<sup>1</sup> *Moraindi* is a local term applied to an earthy matter consisting of soft granular limestone bits and clay.

on the larger mound only three small brick houses, two belonging to the latest period of occupation, circa 2nd—3rd century A. D. and one assignable to the Maurayan or middle period, have been unearthed.

The recording of portable antiquities during the year 1938-39 was done with reference to the trenches in which the objects were found but as there are very few structures in relation to which objects could be recorded, this system was abandoned in favour of the 'square' system by which the find-spots of antiquities could be located within an area of 25 feet square. The datum line, provisionally fixed at 100, with which levels of structures are compared, is the bed of the river Dhil. The depth at which antiquities were recovered was recorded with reference to the surface of the mound.

*Trench A.* This trench (Pl. I & VI) on the south-western slope of the site as completed, is a large rectangle measuring 400 feet from north to south and 100 feet from east to west, includes the spot where the *Gujar* boy found the first hoard of 326 silver punch-marked coins and in the course of further clearance yielded another pot containing 99 silver punch-marked coins. The following noteworthy remains were brought to light in this area:—

*Structure No. 1*<sup>1</sup> is a series of four parallel walls, each 10 feet in length running north to south with a fifth curved wall on the east side. The walls are of single brick thickness and are composed of bricks measuring  $1'11\frac{1}{4}''$  by  $10''$  by  $3\frac{3}{4}''$  in thickness. The intervals between the walls of which not more than two courses have survived, range from  $10\frac{1}{4}''$  to  $1'4\frac{1}{4}''$ . Their tops were only about  $1\frac{1}{2}$  feet below the surface of the mound. Base level 116.52 or  $16\frac{1}{2}$  feet above datum.

*Structure No. 2.* To the south of structure No. 1, is an independent wall measuring  $16'3''$  from north to south of which seven courses have survived. This wall is composed of bricks of varying sizes ( $1'9'' \times 9\frac{1}{2}'' \times 3\frac{1}{2}''$  and  $1'7'' \times 9\frac{1}{2}'' \times 3\frac{3}{4}''$ ) laid in alternate courses of headers and stretchers. The bricks are smaller than those in the parallel walls described above which occur at a higher level. Its base is  $11\frac{1}{2}$  feet above datum.

*Structure No. 5.*—This is a small dwelling consisting of two rooms measuring  $25'9''$  from north to south and  $13'5''$  from east to west on the outside. The internal dimensions of the larger room are  $16'8'' \times 10'$  and those of the smaller  $10' \times 5'$ . The walls of which only two or three courses have survived are  $1'7''$  in thickness and are composed of bricks measuring  $1'7'' \times 9\frac{1}{4}'' \times 3\frac{3}{4}''$  in thickness laid in alternate courses of headers and stretchers. Each of these rooms had a doorway of its own on the eastern side measuring  $3'4\frac{1}{2}''$  and  $2'5''$  wide respectively. The foundations which rest on broken bricks are at a level of 116.41, i.e., about the same as of the parallel walls No. 1, above.

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<sup>1</sup> The numbers of structures refer to their positions in the plan.

*Structure No. 9.*—This is a portion of a semi-circular structure divided into two by a thin wall composed of bricks measuring  $1'4'' \times 9\frac{1}{4}'' \times 3''$  thick. The foundations rest on a layer of hard *moraindi* clay, about 6 inches thick, at a level of 16·81 feet above datum. Buried below the foundations of this structure was a large furnace platform composed of burnt broken bricks.

*Structure No. 27.*—This is another set of five parallel walls of which only two courses have survived. Each wall measures 5 feet in length with intervals between them measuring  $1'3\frac{1}{2}''$ . The bricks used in their construction measure  $1'7\frac{1}{2}'' \times 10'' \times 3''$  in thickness. The base of these walls is 17·97 feet above datum.

*Structure No. 28.*—This small length of a pipe-drain, only 7 feet in length, is composed of pottery pipes, each  $1'3''$  in length and about 10" in diameter. Each pipe has a rebate of two inches on one side on which fitted the broad end of the next pipe, thus forming a fairly close fitting joint.

In addition to the structures described above some broken pavements built of roughly dressed stones and brick-bats, six broken jars and eighteen ring-pits (indicated by circles in the plan) were laid bare. All the ring-pits except Nos. 11 and 24 were excavated from inside right down to their bases and yielded decayed earth mixed with plenty of potsherds and some minor antiquities. The two exceptions noted above were filled with layers of *lota*-shaped pottery jars (Pl. III, e) with their mouths turned downwards. The arrangement in one of these ring-pits is diagrammatically shown in a section of Pit No. 24 (Pl. VI) by the side of which a broken colossal jar was also unearthed. In view of the importance of ring-pits on this site and large numbers in which they occur, I have purposely refrained from describing each pit separately so as to avoid repetition and have appended a general description of these at the end of the present chapter. For tabulation of ring-pits see Appendix 'A.'

Portable antiquities found in this trench besides two hoards of silver punch-marked coins, included a number of pottery plaques representing the mother-goddess, iron and shell objects, beads, numerous pottery vessels and a beautiful pottery statuette (Pl. XVII, a) of an ape. The first hoard of 326 punch-marked coins was found at a depth of 4 feet below the foundations of structures No. 1, 5 and 9 and the second hoard of 99 punch-marked coins at 115·54 or about a foot below the base of structure No. 5.

*Trenches J and N, (Pls. I & V).*—The eastern portion of the mound covering an area of about 380 feet in length from north to south and 190 feet from east to west marks the positions of these trenches. The average depth to which excavations were conducted in this area is 4 feet but deep-digging in the south-east corner (Trench J) were carried down

to a depth of 12 feet below the surface of the mound. The following remains brought to light in this area deserve mention:—

- (a) Four sets of parallel walls (Nos. 1, 4, 33 and 38).
- (b) A small dwelling consisting of two rooms (No. 40).
- (c) The remains of a smithy (No. 27).
- (d) 14 ring-pits, represented thus ☶
- (e) Deep Digging, D. D. 1.

(a). (*Pl. V, 1, 4, 33 & 38*)—Details of dimensions etc., of the four sets of parallel walls are given below. The foundations, as usual, rest on *moraindi* clay and the intervals between them were found filled with hard set *moraindi* entirely devoid of antiquities of any kind:

Parallel wall.	No. of walls.	Length of each wall.	Interval.	Size of bricks	Remarks.
Str. No. 1	9	6'2"	10"	1'7" x 9 $\frac{1}{2}$ " x 3"	24.0' above datum.
Str. No. 4	17	9'2"	8 $\frac{1}{2}$ "	1'7" x 9 $\frac{1}{2}$ " x 3"	21.6' ..
Str. No. 33	20	7'6"	6 $\frac{1}{2}$ "	1'5" x 8 $\frac{1}{2}$ " x 3"	23.15' ..
Str. No. 38	14	9'0"	5"	1'5" x 8 $\frac{1}{2}$ " x 3"	22.2' ..

Of the four sets of parallel walls, structure No. 4 (*Pl. II, d* & *Pl. V, 4*) deserves special attention inasmuch as the tops of walls in this case are covered over by a damaged brick platform, one brick in thickness. The bricks of which this platform is composed are of the same size as employed in the construction of walls and are laid lengthwise on the tops of channels filled with *moraindi* clay. The intervening space left on the top of the walls between bricks covering the channels is filled with bricks cut to the required size, *i.e.*, 1'2" x 6" x 3".

(b). *Structure No. 40*—This small house consisting of two rooms was entered from the southern side where a small portion of a pavement has survived. Its external dimensions are 23'4" from east to west and 11'10" in width with surrounding walls 1 $\frac{1}{2}$  feet in thickness. The cross-wall, 1 $\frac{1}{2}$  feet in thickness, divides the house into two rooms of almost the same size measuring 9'3" x 8'7". The existing height of the walls is 2 $\frac{1}{2}$  feet composed of bricks measuring 1'6 $\frac{1}{2}$ " x 9" x 3" in width laid in alternate courses of headers and stretchers. The foundations are at a level of 122.79 or 22.79 feet above datum. No antiquities were recovered from inside the building but two large pieces of iron refuse weighing several seers were met with about a foot above the level of the foundations and another lump at the same level in the north-west corner, outside the building.

(c). *Structure No. 27*—Of the numerous furnaces, traces of which were observed during the course of excavations in the form of ashes, burnt clay, iron refuse and slag, structure No. 27 is the only smithy of which some remains have survived. This consists of a small chamber measuring 12'7" x 10" of which the eastern side is occupied by two mud furnaces burnt to terracotta. In the larger furnace, rectangular in shape,

a quantity of carbonized wheat was found and as a furnace is indeed no place for storing wheat, it seems highly probable that this was used for parching corn after the operations requiring great heat were over. The second furnace is somewhat oval in shape with an opening into the room. It is of special interest inasmuch as its sides are marked with symbols in high relief. A right-limbed swastika appears on the left side and the enigmatic symbol  $\gamma$  on the right side. On the outside of the southern wall of the chamber is a crudely finished drain composed of wedge-shaped bricks measuring 1' 5" long, greater width 9", smaller width 4" and 3" thick. As regards the working of the furnaces and the purpose of the drain outside the smithy nothing can be stated with certainty but the discovery of large quantities of iron refuse weighing over a maund and some finished tools of the same material lead to the conclusion that probably smelting operations and manufacture of tools was conducted in this smithy. The objects recovered from inside and outside this chamber included quantities of iron refuse, some iron tools, carbonized wheat, numerous miniature pottery toys provided with holes for fitting in movable limbs (Pl. XVIII, 6, 7 & 12), plaques representing various types of mother-goddess and a terracotta seal bearing Brahmi characters and another bearing swastika only.

(d). Other remains brought to light in this area include 14 ring-pits (see Appendix A), 14 fragmentary jars and traces of some broken pavements.

(e). *Deep Digging (D. D. 1)*—An area measuring 50 feet from north to south and 70 feet from east to west in the vicinity of parallel walls No. 1 was selected for deeper operations as no surface remains of any kind existed here. The excavations were carried down to a depth of 12 feet from the surface of the mound till soil devoid of antiquities was reached (11.98 feet above datum) and although no structural remains were brought to light, the debris consisted of earth mixed with potsherds, etc. At two levels, e.g., 16.08 feet and 14.58 feet above datum thick layers of potsherds mixed with ashes were noticed and it was at these levels that bottoms of four broken jars (Pl. V, section on A, B) were also found showing that the site was in occupation on two earlier occasions besides the period represented by the remains on the surface of the mound.

Minor antiquities recovered included pottery vessels of various shapes, flesh rubbers, curry stones, ear-pendants including one of rock-crystal, votive tanks, figurines of mother-goddess, beads, a gold finger-ring (Pl. XXI, 2), a copper ladle (Pl. XX, 17), some iron objects and a gold hair-pin (?) (Pl. XXI, 3).

*Trench O. (Pl. V)*—This L-shaped trench was cut on the slope of the mound immediately to the east of trench N (see site plan, Frontispiece). As completed it measures 180 feet in length from east to west and 170 feet from north to south. Although the excavations here yielded

an extremely rich harvest of 2650 silver punch-marked coins comprising of three hoards (535, 132 and 1983 coins respectively) contained in pottery vessels, an artistically executed shell antimony holder in the form of a fish (Pl. X, 11; Pl. XXI, 26) and minor antiquities of the usual form, no brick remains came to light in this area. A small length of a pipe drain consisting of 10 pipes, 17 ring-pits and a broken jar are the only remains unearthed in this trench. The hoards of coins were found at depths of 17'14 feet, 16'35 feet and 17'34 feet respectively above datum or about 5 feet below the base level of parallel walls No. 38 in trench N.

*Trench B. (Pls. I & V)*—The excavations on the top and the southern slope of the spur on the north-east portion of the ruins, are now represented by trench B. A couple of feet below the surface on the top of the mound some brick wallings, platforms, an L-shaped drain, 17'4" long by 10" wide, and another curved brick-drain, 22' long and 1'6" wide were brought to light but of these remains no plan can be made. Amongst 18 ring-pits laid bare in this trench, a compact block of four (No. 2), and another of three (No. 10) with a fourth separated by a few feet and a group of two pits (Nos. 15 & 16) are noteworthy inasmuch as these pits on clearance were found to be filled with pottery jars placed with their mouths downwards. Other pits yielded decayed earth mixed with potsherds and some minor antiquities.

On the southern slope of the mound deeper operations were conducted and a deep cutting marked D. D. 2 in the plan, measuring 55 feet by 36 feet was dug down to a depth of over 10 feet till clean sandy soil was met with. The excavations here brought to light the existence of a long brick drain (Pl. IV, d) at a depth of 17 feet above datum. This drain, 34'8" long and 3'5" wide, is composed of radiating bricks measuring 10" long, greater width 1'3", smaller width 10" and 2 $\frac{3}{4}$ " thick. The flow is from north to south and in the absence of any other remain in its vicinity it is impossible to ascertain its lay out but it has established beyond doubt the existence of an earlier period of occupation at Rairh. The traces of still earlier settlement on this site were furnished by thick layers of ashes, potsherds etc., a few feet below the base of this drain. A diagrammatic view (Pl. VI) showing layers of ashes, potsherds etc., gives a clear idea about the stratification and the manner in which the level of the mound rose from the earliest period.

Noteworthy antiquities discovered in this trench included numerous bonespikes, a copper Senapati coin, a slate-stone slab with Brahmi inscription (Pl. XXVI, 25) and a reel-shaped copper ear-pendant plated with gold (Pl. XXI, 1).

*Trench C. (Pl. VI)*—In this trench, which measures 190 feet from north to south and 141 feet from east to west, the following structures were brought to light:—

- (a) Three sets of parallel walls (Nos. 1, 1a, 2 and 10).
- (b) A double-roomed structure with brick-floor (No. 21).
- (c) A well-like structure composed of wedge-shaped bricks (No. 11).
- (d) Layers of iron refuse which probably once served as foundations of a building (No. 7).

(a). Details of sets of parallel walls are given below:—

Parallel wall.	No. of walls.	Length of each wall.	Interval.	Size of bricks.	Remarks.
Str. No. 1	17	9'7"	7"	1'6" x 9" x 2½"	24'54' above datum.
Str. No. 1a	11	6'0"	8"	1'6" x 9" x 2½"	..
Str. No. 2	20	12'0"	6½"	1'6" x 8¾" x 2½"	22'95'
Str. No. 10	15	10'7"	6½"	1'4" x 8" x 3"	21'19' ..

(b). This small brick building (Pl. IV, b; Pl. VI, Tr. C, 21) which measures 24'11" x 10'3" on the outside belongs to the intermediate period of occupation. The only other structure assigned to the same early period is the brick-drain excavated in deep digging (D. D. 2) on the southern slope of trench B. It is built of badly baked large-sized bricks which measure 1'7½" x 9¾" x 4". A partition wall of single course of headers divides it into two rooms, the internal measurements of which are 10'2" x 7'9" and 9'2" x 7'9". No antiquities of any kind were found in these rooms. The building was entered from the east by a doorway nearly 3½ feet wide and its foundations are 17 feet above datum.

(c) The well-like structure No. 11 composed of wedge-shaped bricks is built upon the western wall of the northern room of structure No. 21 described above. The bricks employed in its construction measure 1'5" long, greater width 10", smaller width 5" and 3" thick.

(d) Only traces of the foundations of structure No. 7 (Pl. VI, Tr. C, 7 and Pl. II, c) which once formed a row of three rooms have survived in the form of a thick layer of iron refuse which obviously was laid under the foundations to keep off white ants etc. The use of iron slag in foundations is not met with at any other site and at Rairh also it was an exception rather than a rule as this is the only instance in which iron refuse was made use of in this peculiar fashion. The external dimensions of these row of rooms are 34' x 13'6".

Other structures in this trench include 13 ring-pits, 3 jars and traces of 3 furnaces marked F6, F8 and F9 in the plan.

Antiquities unearthed in this trench included besides objects of the usual kind found all over the area, a perfectly round and highly polished stone ball (Pl. XVIII, 10) and a terracotta figure of yakshi (Pl. XV, g) with hair plaited on the back.

Of the remaining trenches on this mound (Pl. I, frontispiece) trenches D and G were found studded with ring-pits of which 38 were unearthed. Other remains included brick pavements and traces of five furnaces. Trench E yielded a lead seal (Pl. XXVI, 22) of the Malava republic

inscribed in early Brahmi characters besides antiquities of the usual type. In trench *M* (Pl. V) which marks the site of a stupendous dump of broken pottery of a thickness of over 6 feet, a group of four ring-pits surrounded by a low wall (Pl. III, b & Pl. V, Tr. M, 3) of which the existing height is 1'9" and two small portions of a drain of pottery pipes were brought to light. These pipes are of the same type as in trenches *A* and *O*.

*Trench L (Pl. VI).*—This trench was cut on the eastern slope of the mound on which stands the modern village of Rairh. As completed it measures 74 feet from east to west and 127 feet from north to south. Some brick-walls (Pl. IV, c) belonging to two or three houses were brought to light but no intelligible plan of any one of these houses can be made out. The buildings represent more than one structural period and are of so poor build that not more than a few courses have survived. The bricks employed are of varying sizes ranging from 1'4"×8"×3" to 1'2"×4"×3". Not many portable antiquities were found in this area but amongst those unearthed are a few pottery fragments, the like of which are not found on the larger mound. One of these is a handle (Pl. XVIII, 3) made out of a mould in the form of the river goddess of exactly the same type as found at Naliasar-Sambhar and assignable to early Gupta times. Another pottery piece is a spout (2 $\frac{7}{8}$ " long) in the form of a Makara or crocodile head (Pl. XVIII, 4) also found at Naliasar-Sambhar and belonging to the same period. The river-goddess handle found at Naliasar-Sambhar<sup>1</sup> is believed to be the river goddess Ganges issuing from the matted locks of Siva head which forms the neck of the vessel. Both these objects furnish some indication that this part of the ruins probably remained in occupation up to the early Gupta period.

#### *Pottery Ring-Well or Pits.*

As has been remarked above the entire area is studded with the so-called 'Granaries' or pottery ring-wells (Pl. III, a-e) which constitute both a puzzling and a noteworthy feature of the excavations at Rairh. In all 115 ring-wells have been brought to light. These are composed of pottery rings ranging from 5 to 25 rings, fitted one on the top of the other. Each ring has a diameter of about 2'2", is about 7" in height and about half an inch in thickness. The lower rim is slightly thicker than the thickness of the sides and the upper rim is flattened like the rim of a jar. On this upper flat rim rests the lower rim of each succeeding ring. No mortar or adhesive of any kind is used for securing the joints but on account of the flatness of the meeting surfaces the joints are fairly close set.

These ring-wells were constructed by digging pits to the required depth in which rings were laid one above the other and sides filled with

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<sup>1</sup> Excavations at Naliasar-Sambhar by D. R. Sahni, p. 51, Pl. IV (g).

loose earth. Generally such wells are isolated with varying distances separating them but instances of clusters of three or four pits surrounded by low walls have also been excavated (Pl. III, b).

With a view to arrive at some definite conclusion as to the use to which these structures were put to, I had 55 out of the total of 115 brought to light, systematically emptied of their contents which were thoroughly examined. For tables showing details about these ring-wells and objects recovered from them see Appendix "A."

Before assigning any possible uses to which these ring-wells could have been put to, it would be necessary to examine their contents in detail. A glance at the tabulation (Appendix 'A') would show that the majority of the pits yielded decayed earth, potsherds of almost all types of vessels, large number of broken and complete dishes or *shakoras* (the vessel in the greatest common use at Rairh), animal bones and a few minor antiquities comprising of beads, copper and iron objects, pottery plaques representing the mother-goddess, model animals, grains of corn, and corroded copper coins etc. Out of the total number of 55 pits emptied 9 were found packed with numbers of round-based pottery jars (Pl. III, e) arranged in layers of three or four but all with their mouths turned upside down and obviously laid with great care. Pit No. 24 in trench A yielded over 40 jars and from another in trench B. 25 vessels were taken out. Objects recovered from other pits were generally found between the surface and a few feet above the base of the pit; their bottoms either contained comparatively few potsherds or decayed earth alone. A characteristic feature of pottery discovered in these pits was that it bore that light greenish colour which is invariably associated with pottery objects that have long remained immersed in sewage or stagnant water. This colour on the pottery and light and loose nature of the earth can only be due to disintegration of organic substances.

Now, as to the possible uses that these ring-wells could have been put to, the suggestion that these may be wells for drawing water from, does not hold good at all and may be dismissed at once as their bases are not only far above the sub-soil water level but end several feet short of the bed of the river Dhil which flows on three sides of the ruins. They could also not have been used for storing water as neither their bases are provided with bottoms nor are they plastered on the sides; water if stored into them would soon be absorbed by the earth.

As regards the view advanced that they might have been used for storing grain or other household objects, a view which has given rise to the term 'Granary,' I am of the opinion that their bottomless bases and unplastered sides would have resulted, if anything, in rapid deterioration on account of the effects of moisture rather than preserve the grain. Further, if these were granaries one could expect to find corn at the bottom but not even in one instance this has proved to be such. Few

grains of corn that were found in Granaries in trench *O*, Nos. 4 & 13, trench *N*, No. 11 & 29 were found in upper levels. The discovery of numbers of pottery vessels in some of these pits in different parts of the mound may suggest that these pits were probably meant for storing pottery jars but this view also must be set aside as the same type of vessels, e.g., round-base *lotas*, have been found in pits scattered in different parts of the mound and as this pottery has nothing to commend about, there are no reasons to believe that this type of jar was valued over every other type.

The decayed nature of the earth, greenish colour on pottery and the presence of numbers of vessels in some of them are all pointers that these pits were most probably used as soak-pits. All minor antiquities recovered from inside these could have accidentally dropped in but the presence of vessels laid in a systematic order (Pl. VI, section of ring-well No. 24), all turned upside down, cannot but be without a definite purpose. Just as in modern soak-pits earthenware vessels, kerosene oil tins, brick-bats etc., are used with a view to prevent the pit from collapsing and at the same time not interfering with the soaking-in process of the sewage, so in these ancient shafts, pots with their mouths downwards were arranged to allow sewage to pass to the bottom and be absorbed by the soil. Such an arrangement besides not interfering with the soaking-in process of the pit rendered the pit safer as well. In such pits only liquid matter was thrown but in other underground shafts all sort of rubbish and dust was dumped in and in order that these might remain effective as soak-pits, these must have been periodically cleared of their contents and protected by some sort of arrangement to prevent accidental fall of children etc.

That these soak-wells formed parts of houses (which being of mud have left no traces behind) is shown by the presence of a surrounding brick-wall enclosing four such pits in trench *M* (Pl. III, b) and traces of platform around a group of three in trench *B*. Small lengths of pottery pipe-drains have been found in the vicinity of some of the pits (Pl. V, Tr. *M*, 1 & 2) and I am inclined to believe that these drains were provided to carry heavy flow of water away from the pits when these for some reason temporarily became ineffective.

The depth of soak-wells range from 1'5" to 19'4 $\frac{1}{2}$ " and whereas some penetrate into the undisturbed virgin soil, the bases of others are only a few feet below the surface of the mound. This discrepancy explains that some of the pits built in the early period were raised and reused while others which were newly sunk were not taken so deep down into the soil.

In a few instances upper portions of large earthen jars were fitted in place of pottery rings (Pl. III, d) and sometimes colossal jars were buried besides the soak-wells for storing water (Pl. III, c).

In the excavations on the Bhir mound at Taxila<sup>1</sup> numerous circular or occasionally square wells were laid bare and some of these were found filled with numbers of vessels laid upside down in the same manner as at Rairh. Sir John Marshall is of the opinion that they were soak-wells. The same site also furnished large earthen jars placed one above the other, with a hole in the bottom of each and provided another form of soak-wells resembling those met with in Mesopotamia.

In his excavations at Ujjain in the Gwalior State, Mr. Garde unearthed a number of ring-pits and in his Annual Administration Report for the year 1938-39 the excavator writes as follows, "Among interesting objects unearthed in these excavations foremost mention may be made of the so-called ring-wells. These are made up of large earthenware rings fitted by rims one above another. In some cases so many as 20 to 25 rings were piled up to a height of about 12 to 14 feet. Contents of these wells or pits varied in character from decayed earth, coins, stone relic caskets and pieces of pottery to bones of a horse or ass in one instance. It is surmised that these were used chiefly for storing grain and other similar domestic articles." I am, however, unable to agree with the conclusion arrived at by Mr. Garde for reasons given above.

Other ancient sites on which ring-wells of identical construction have been laid bare are Brāhmānābad or Mansura in Sind and Srāvastī or Saheth-Maheth in the United Provinces. Mr. H. Cousens, working at Brahmanabad<sup>2</sup> excavated no less than seven narrow deep wells composed of circular sections of burnt earthenware placed one upon the other. He writes "they went down from the uppermost surface to the sand below the alluvial deposit. In most cases they were within the rooms of houses and were no doubt private. In sinking one of these wells they had cut through a six-inches water pipe. They seem to point to the fact of the drying up or change in the course of the river, during the last occupation, when each householder had to sink his own well to provide this necessary of life, and, when these dried up, further occupation of the site became impossible." The view that they were wells for drawing water from does not seem to hold good as their foundations do not go deep enough into the soil but the fact that they went down below the alluvial deposit will make them very effective soak-wells.

Digging at Srāvastī<sup>3</sup> Dr. J. Ph. Vogel brought to light two pits composed of earthenware rings fitting together so as to form vertical tubes and thought them to be drains, a conclusion very near to that established by the close examination of numerous pits opened up at Rairh.

<sup>1</sup> Guide to Taxila by Marshall, pp. 144-145 and A. S. Rs. 1919-20, p. 22; 1920-21, p. 19; 1924-25, p. 47 and 1929-30, p. 68.

<sup>2</sup> A. S. R. 1903-04, p. 135 and A. S. R. 1908-9, p. 81, Fig. 2.

<sup>3</sup> A. S. R. 1907-8, p. 110, Plate XXVII and XXXII.

*Parallel Walls.*—The other peculiar feature of the excavations on this site is the presence of the foundations of series of parallel walls of which no less than ten sets have been brought to light (Pl. II, b, d and Pl. IV, a). As has been described in the foregoing pages none of the walls comprising these sets have more than four courses of bricks and the spacing between the walls is invariably packed up with hard set *moraindi* clay totally devoid of antiquities. These series of parallel walls, the purpose of which is not easily intelligible, at first sight appear to be miniature models of the parallel walls excavated at the pre-historic city of Harappa in the Montgomery District of the Punjab but whereas the latter are built on a stupendous scale and are differently planned and there is no doubt about their being component parts of a granary for the storage of commodities, the constructions at Rairh served quite a different purpose. A structure similar in nature to the parallel walls at Rairh was excavated at Mohen-jo-daro<sup>1</sup> beneath the pavement of a room. Dr. Mackay in his description writes, "The only clue to its use is provided by a set of six parallel brick channels in the northern half of room 64 (Pl. XXLV, f). These channels are 5'2" long and they average 6'5" in width and 10" in depth. Though no ashes were found, nor do the bricks show any signs of smoke, it is possible, none the less, that cooking pots were placed over wood fires in the channels just as in modern Sind and even in our own kitchens. If this was so, the cooking must have been on rather a large scale, certainly for more persons than one family. This together with the large courtyard and the position of this building suggest that it was a *khan* or some other public structure." The striking similarity of the series of parallel walls unearthed at Rairh and those beneath the floor of a room at the pre-historic site of the Indus Valley cannot be set aside. Neither ashes, charcoals nor signs of burning of any kind have been noticed in any of the channels of the parallel walls at Rairh, nor have they yielded any objects. Their uniform nature of construction and the presence of hard set *moraindi* clay in the channels preclude the possibility of their ever having been used as fire-places. Analogous structures both with the super-incumbent platforms and without them have been excavated at Paharpur,<sup>2</sup> Bengal, as well. That their purpose was to serve as foundations for floors to prevent the possibility of their sinking is evident from their use at Mohen-jo-daro, Rairh and Paharpur. Luckily, the survival at Rairh of a fragmentary pavement, one brick in thickness, covering the channels of one set of parallel walls (Trench N, Pl. II, d) leads to the same conclusion.<sup>3</sup> The floor is constructed in the manner described below. The channels between the walls which are filled with *moraindi* clay are covered over with bricks laid

<sup>1</sup> F. E. M., Vol. I, p. 105 and Vol. II (Pl. XLV, f).

<sup>2</sup> Excavations at Paharpur, Bengal, by Rao Bahadur K. N. Dikshit, Pl. XX(a).

lengthwise. The intervening space between two such bricks on the top of the walls is covered by bricks cut out to the required size.

It may, therefore, be concluded that these parallel walls probably served no other purpose than the foundations of solid pavements and channels filled with *moraindi* clay were provided with a view to economize the use of bricks. What the nature of the superstructure was is well-nigh impossible to say in the absence of any further clues.

## CHAPTER III.

### Vessels.

*Pottery*.—With the exception of a few vases which are hand-made, the whole range of pottery discovered at Rairh is made on the wheel. Hand-made examples are confined to small feeding cups (Pl. VII, 45 and Pl. XI, 23 & 24) alone. Amongst a very large number of complete and fragmentary vessels found there is not a single painted sherd and in the absence of designs, forms of pottery alone are of utmost importance for purposes of dating and comparison with pottery found at other sites. The fabric of which the ware is made cannot be depended upon as it is likely to differ under different local conditions. With a view to facilitate comparative study I have included line drawings of pottery and stone vessels (Pls. VII—IX) with the hope that the publication of future finds on similar lines will give proper chronological classification of pottery of the historic period. The pottery found at Rairh covers nearly five centuries from about the 3rd century B.C. to about the close of the second half of the 2nd century of the Christian era and shows that uniformity of forms and fabric, whether found on the surface of the mound or at the earliest level recorded, which renders any further subdivision unnecessary. On the contrary it proves that although the site was deserted and reoccupied on three different occasions the forms during the period remained very much the same.

A few decorative designs met with on rare pieces consist of stamped patterns, plain incised lines done on the wheel (Pl. XI, 8), the rope or the chain pattern done with the finger nails (Pl. XI, 3) and the pot-marks comprising of the swastika and that enigmatic symbol  $\gamma$  (Pl. XI, 2 & 3) which may either be the taurine symbol, the Brahmi *Ma* or the wheel and the *tri-ratna*, in raised characters. The chain pattern and the pot-marks are found on larger jars only. The symbols were finished on the vases before being baked. The symbol  $\gamma$  was considered as sacred as the swastika seems almost certain as both are found in combination with each other not only on pot-sherds but on seals (Pl. XXVI, 19 & 20) and on the sides of furnace No. 27 in trench N. Perforated pottery is represented by a few examples (Pl. XI, 21) and its rarity suggests that it was imported from some other site. Handled and spouted vases were common enough and ribbed pottery was also manufactured to a certain extent.

The clay of the locality which contains large proportions of sand, is porous and, as such, far from the quality required for producing good ware. In order to reduce its porosity and gain the required adhesive

quality, carbonaceous material in the form of wheat straw, chaff or cow-dung was added to the clay. A copious mixture of these substances can be easily seen on the surface or in the core of numerous broken vessels. Pots made of such coarse clay burnt dull red on the surface directly exposed to the fire in the kiln but imparted dark colour to the core on account of partial combustion of carbonaceous materials. The thicker the vessels, the greater is the thickness of this dark core, the closer examination of which reveal straw and the presence of wheat grain and chaff. On account of lack of clay compact in texture the potters of Rairh produced wares of poor hardness and coarse quality but no over-burnt specimens have been found. A few vases of gray colour have been found, but whether this gray colour is the result of smoking in the kiln or due to some special kind of clay is difficult to say but such wares like some small pieces are free from straw, chaff etc.

The surfaces of some of the vessels were coated with a thick layer of red ochre which in many instances has a tendency to peel off. This is the only colour decoration on Rairh pottery which besides making the ware bright red concealed its coarse surface, fissures and other defects. The red paint was applied on the outer surface leaving the bottom unpainted and in the interior as far as the hand permitted. Cream or whitish wash mixed with powdered mica was also applied but generally speaking this is restricted to vessels the clay of which contained lesser degree of straw etc. No glazed pieces have come to light.

It is not possible to say anything with regard to the nature of the kilns used and the form of the wheel on which the potters worked. Vessels with flat bases show marks of thread used in separating them from the wheel, others with slightly convex or round bases show marks of scratching and the use of the dabber for rounding and enlarging them before baking.

A narrow-necked vase (Pl. XI, 11) made of light pink clay of fine consistency bearing highly polished slip is the best finished vase found at Rairh. This is undoubtedly a foreign importation and can definitely be assigned as Buddhist pottery; having been found in the upper levels at Mohen-jo-daro dated about the beginning of the 3rd century A. D., at Bairat and Rajagriha in Bihar. The fine pink paste of which the vase is made is so carefully polished that it presents stone-like appearance. I am inclined to assign this fine vase to the 2nd-3rd century A. D.

The vase described above (Pl. XI, 11; No. R. 1807) was found in trench *D* at a depth of 1'6" below surface. It is round-based and 4½ inches high.

A few theriomorphic vessels (Pl. VII, 40 & Pl. XI, 1) that have been found are in the form of monkeys. Only two perfect examples have survived. The pot was turned on the wheel and details finished in hand. A monkey's head obtained from a mould was fixed to a portion of the

rim and two clay strips on the body of the jar were added to represent arms. Legs and tail are represented by three small stumps fixed to the flat base in the form of a tripod. An aperture near the bottom of the vase represented the genital organ of the monkey. The vase is made of the usual kind of clay and bears traces of red ochre with which the face, hands and a part of the body were painted. This vase could only have served as a toy as the water poured in it passed through the genital organ. It is 5·4" high. (Locus Tr. D, level 1½ feet B.S.). Vessels in the form of animals are found among the relics of most ancient civilizations and were known in India as early as the 3rd millennium B.C. as shown by the discovery of a theriomorphic vase in the form of a couchant ram at Mohen-jo-daro<sup>1</sup> in the Indus Valley. But whereas, the Mohen-jo-daro example could have been used as an inkstand, the pieces found at Rairh are toys as on account of a hole near the bottom, these could not have held any liquid.

Feeding cups of which only a few examples have been found are hand-made and crudely finished. Of the two illustrated in Plate No. XI, 23 & 24, one is provided with a double spout pierced with narrow holes and the other is in the form of a cup with a fairly wide hole.

Potter's dabbers or mallets for tapping the surface of pottery jars on their removal from the wheel, of the usual shape have been found. With a single exception which is of stone (Pl. XI, 20) and another cut out of a brick, the rest are of terracotta.

Pottery vessels illustrated in Plates Nos. VII, VIII & XI include many types of vases for domestic use. The vessel in commonest use and in great demand was a type of dish (Pl. VIII, 20 & Pl. XI, 10) or *Shakora* with a narrow base and deep sloping sides with incurved rims. Large numbers of these, both complete and fragmentary were found all over the area and at all levels. They also constituted the majority of the sherds gathered from inside the ring-pits or soak-wells and, if our assumption that these pits were used as dust or rubbish bins in addition to soak-wells is correct, it would seem that these dishes used for eating from were thrown away after use, just as in modern India Hindus reject pottery vessels other than for cooking or storing as impure after they have once been brought into use. *Lota*-shaped vessels of different shapes and sizes (Pls. VIII & XI) were used as drinking vessels. Tumblers or beakers (Pl. VII, 38 & 39 and Pl. XI, 8) so commonly found at Mohen-jo-daro and Harappa were not in common vogue as not more than two examples of this type have been found. A variety which is of special interest is illustrated in Plate No. VIII, 6—9. Out of five hoards of silver punch-marked coins found at Rairh, four hoards were found contained in such jars. These flare-rimmed vessels with medium-sized

<sup>1</sup> F. E. M., Vol. I, p. 188, Pl. LXVI.

necks have flat round bases and taper from bottom upwards. As a rule they are better finished, painted red and bear incised linear decorations round the shoulders. Miniature vases have been found in fairly large numbers and these seem to have been a staple product of the potter as no care was bestowed in finishing them. Colossal jars for the storage of water etc. are elongated in shape and provided with pointed domical bases (Pl. X, 20) which necessitated their being buried into the floor up to a certain depth. *Gharas* with almost spherical bodies were of the common variety and circular ring-shaped jar-stands (Pl. VII, 9) that have been found suggest that supports were provided for them. Number of round-based *lotas* or jars (Pl. VIII, 5) of the shape used for drawing water from a Persian wheel, found from inside the soak-wells, were laid in layers in the shafts of the pits with their mouths turned upside down. Jar covers of three varieties have been found. The first type is dish-shaped (Pl. VII, 31) provided with a ring-handle; the second variety has a knob in the middle (Pl. VII, 32) and to the third type belong a few examples shown in Plate VII, 33. Large-sized troughs provided with handles were manufactured but besides a few fragments (Pl. XI, 19) no complete example has been found. Cups with almost straight sides (Pl. XI, 9), bowl-like receptacles, pans, handled and spouted vases (Pl. VIII, 13—18), offering stands (Pl. VII, 41), bottle stoppers, small dish-like lamps and various varieties of squated vessels were among other types of vessels manufactured. The vessels of the last class have their lower half shaped like a dish, are narrow-mouthed and have a sharp ridge on the sides (Pl. VIII, 25 & 26).

In addition to those described above a few vases (Pl. VIII, 2 & 4) of graceful forms with long tapering necks and almost flat or round bases have also been found. They are painted red and were mostly confined to trench L on the eastern slope of the modern village which also yielded a handle of a jar depicting the river goddess (Pl. XVIII, 3) of exactly the same type as found at Naliasar-Sambhar and belonging to the Gupta period. Besides this faint evidence furnished by the pottery handle and a *Makara*-shaped spout (Pl. XVIII, 4) no other relics of the Gupta times have been found but the possibility that the site remained in partial occupation till the early Gupta period may not be rejected as the tribal republic of the Malavas settled in eastern Rajputana was subdued by Samudragupta in his Northern Indian campaigns which lasted from circa. 330 to 336 A. D.

*Stone Vessels* (Pl. IX) that have been found are made of steatite, commonly known as soap-stone, of which abundant supplies are available in the Jaipur State. The only exception which is a foreign importation is a fragment of the rim of a large bowl of polished *Chunar* sandstone in typical Asokan technique. They are quite regular in shape and turned on the lathe. The forms include cups with round and flat

pedestalled bases, flat circular caskets provided with grooved rims to take separate lids and circular jar covers. Some of the vessels bear circular linear decoration incised on the lathe ranging from a single line to four lines while others are decorated with linear geometric patterns in the form of triangles or cross-hatchings.

Their rarity combined with small sizes show that stone vessels were not in common use and must have been expensive as well. They were probably used for keeping cosmetic, unguents or jewellery and must have been highly prized. The only stone bowl which could have been used for eating purposes (Pl. IX, 1) has a diameter of about  $4\frac{1}{2}$  inches. It may be remarked that none of the stone vessels have forms common with pottery vases. They are very similar to the relic caskets found on Buddhist sites for the enshrinement of body relics. Steatite caskets of similar types were found in fairly large numbers at Naliasar-Sambhar.

Different types of stone vases are illustrated in Plates IX and XI, 4, 5 & 6) and their descriptions are given below:—

*Fig. 1 (R.2019).*—Greyish yellow steatite bowl with pedestalled base. Broken round the rim. Diameter 4'35"; Locus: Trench C,  $1\frac{1}{2}$  feet below surface.

*Fig. 2.*—Greyish yellow steatite bowl; ht. 1'36". Fragment of a pedestalled bowl with recessed rim on to which is fitted a cover. Decorated with a band of four incised lines. Found on surface of mound.

*Fig. 3 (R.2320).*—Casket without lid, lower half decorated with incised cross-hatch design; grey steatite; ht. 0'8". Locus: Trench C; 3 feet below surface.

*Fig. 4 (R.498).*—Lower portion of a casket; yellowish steatite. Diameter 3"; Locus: Trench C; 3" below surface.

*Fig. 5 (R.2138).*—Casket without lid; grey steatite; ht. 0'85". Locus: Trench C;  $2\frac{1}{2}$  feet below surface.

*Fig. 6 (R.2348).*—Steatite; dark grey colour; ht. 1'1"; domical jar lid. Locus: Trench D;  $1\frac{1}{2}$  feet below surface.

*Fig. 7 (R.1351).*—Three tiered jar lid decorated with linear geometrical patterns; grey steatite; ht. 1'2". Locus: Trench G; 2 feet below surface.

*Fig. 8 (R.2200).*—Casket without lid; brownish steatite; ht. 1". Locus: Trench F;  $1\frac{1}{2}$  feet below surface.

*Fig. 9 (R.1424).*—Casket with round base; grey steatite; ht. 0'75". Locus: Trench H; 2 feet below surface.

*Fig. 10 (R.553).*—Jar lid decorated with circular and floral linear design; grey steatite; diameter 2'1". Locus: Trench A; 3 feet below surface.

*Fig. 11.*—Fragment of a vase with projecting rim; grey steatite.

*Metal Utensils.*—With the exception of a couple of long-handled bronze ladles (Pl. XX, 17) found in D. D. 1 at a depth of 5' 9" below surface, base of an offering stand of bronze, a highly corroded bronze cup and a couple of fragments of vessels of uncertain use, all other utensils are made of iron. It is rather surprising that none of the iron vessels bear any semblance to pottery forms, a fact which may lead to the conclusion that these played no important role in the household scheme. They are confined to dishes with flat and round bases and the majority are provided with vertical handles (Pl. X, 7—10 & Pl. XX, 14, 15) ranging from one to three. I am inclined to believe that these handled dishes were either used as oil carriers or, what is more probable, as dippers for taking out molten metal for casting tools etc. The thickness of dishes which is far more in proportion to their sizes suggests that these were meant to hold heavy weights, probably in the form of molten metal. All these vessels are highly corroded and in a poor state of preservation. They are all cast except for the handles which were shaped by hammering. What the length of the handles was and how were they shaped is not possible to say as no complete example has been found. Of the five dishes illustrated in Plate X, 6—10, No. 6 (R.1193) is a round-based shallow dish measuring 7·5 inches in diameter and 0·3" thick. No. 8, diameter 3·5" and No. 7 (R.125), diameter 3·1", are round-based handled oil-carriers and Nos. 9 & 10 (R.242, diameter 4" and R.110, diameter 5·3") are examples of flat-based dippers provided with two handles.

## CHAPTER IV.

### Figurines and Model Animals.

At the outset it may be stated that only one fragment of stone statuary has been found at Rairh. This piece (Pl. XVIII, 1; R.3735) which is a part of a soap-stone sculpture is only 2·3 inches high but judging from the height of the existing part of the lower portion of the left leg, the entire sculpture must have been five times as high. The figure stood on a pedestal 1·8" long by 1·2" wide. Against the left leg of the central figure, which presumably was some deity, stands a headless female devotee facing the leg (ht. 1·98") with her right arm double-folded and left fully stretched holding a garland. She is bedecked with anklets and bangles, wears an ornamental loin cloth and her hair arranged in two locks and terminating in a single braid fall up to the knee-joints on the back. The main figure also wears anklets. Judging from the style and workmanship of this piece I am inclined to assign it to the Sunga period, *i.e.*, about the 2nd century B.C.

All other human as well as animal representations are made of the same poor quality clay that was employed for manufacturing pottery vessels and contain almost the same proportion of chaff etc., which on burning imparted dark grey colour to the core. Mica mixed with red ochre and clay solution was employed for painting the figurines. Red colour which possibly had some religious significance also remedied warp in baking by concealing their rough surfaces. Quite a large number of human figurines have been found at Rairh. These include horse and elephant riders (Pl. XVI, 1 & 8), a few representations of yakshis (Pl. XV, a, c & g), a unique stark-naked male figure (Pl. XVIII, 2), and numerous female figurines (Pls. XII & XIV). Objects of the last order are identified as representations of the mother-goddess of which several distinct types are found. The multiplicity of the types which must have been easily intelligible to the ancient inhabitants cannot be explained. It may, however, be presumed that different qualities were attributed to different types. Among the several varieties described below only those belonging to type (1) are partly hand-made and partly cast; others are cast but whereas large number of casts have been found, not a single mould has been discovered.

*Mother Goddess*.—The cult of the Nature or Mother-goddess had its origin in the hoary past. The deity played a supreme role in the religion of the Indus Valley people in the 3rd millennium B.C. and representations of the goddess have been found in Baluchistan, Iran, Mesopotamia, Asia Minor, the Balkans, Syria, Palestine, Crete and Egypt showing

that the cult of the goddess was prevalent from the Indus to the Nile in the chalcolithic times, but which country is to be credited with its origin cannot yet be told. This much, however, is certain that in India the cult of the goddess was wide-spread before the incoming of the Aryans and was so deep-rooted that it not only survived the Aryan invasion but was assimilated in the Vedic fold in the form of the Earth goddess or *Prithvi* and is worshipped till this day as *Shakti*.

### *Types of Mother-Goddess.*

*Type No. 1.*—To this type are assigned a number of crude figurines, hand-made except for the face which was obtained from a mould and joined to the core. They are nude except for a girdle and a scarf round the head and are bedecked with simple ornaments. Of the three figurines illustrated in Plate XII, (c, f & g), Fig. (g). (R.2422, ht. 6 $\frac{7}{8}$ ") is a headless model wearing a double-banded loin cloth and a necklace from which hang four long pendants; Fig. (f). (R.330, ht. 5 $\frac{3}{4}$ ") is nude except for a scarf round the head and neck which falls up to the breasts and a girdle. The scarf is decorated with embossed square patterns filled in with mica dust. The front of both these figures is painted red. Fig. (c). (R.1705, ht. 3 $\frac{1}{8}$ ") of which only the head has survived, is made of dark colour clay and painted with a slip of the same colour containing abundance of mica. Its elaborate head-gear fastened by two vertical bands on the sides is decorated with a central jewel. It was obtained from a far more elaborate mould than those described above.

*Type No. 2.*—This type is represented by cast pottery plaques convex at the back. The goddess (Pl. XIII, b) stands full front with an elaborate new type of halo round her head. The halo very much resembles the wings on terracotta figure from Basrah.<sup>1</sup> She wears a necklace and a garland hanging over her breast down to the navel and heavy pendants in the ears from which hang several strings of beads or pearls and appears to hold the folded drapery in her left hand and an unidentifiable sword-like object in her right hand. The well-proportioned form and outline of the body, folds of drapery and minute ornamental details are so well executed and balanced that it is undoubtedly the best finished of all types. The transparency of the elaborate nether garment is suggestive of the fact that fine cloth was woven during this period. The goddess is painted red. Over two dozen examples of this type have been found and having been obtained from the same mould, their average height including the pedestal is about 6 inches. The example illustrated (R.1184, ht. 5 $\cdot$ 9") was found in Trench D at a depth of 3 feet below surface.

<sup>1</sup> Cambridge History of India, Vol. I, A. S. R. 1913-14, Pl. XLIV, i.

*Type No. 3.*—In this type (Pl. XIII, c) the goddess stands full front with her hands on hips. She is completely nude except for a double-banded girdle and is bedecked with ornaments, e.g., ear-rings, necklace, bangles and anklets. The diadem on the head is ornamented with a star-shaped six pointed jewel in the middle in addition to three palmette branches that emerge from its proper left side and a double string of pearls hanging from the proper right extremity. That this type was very popular is shown by the fact that over 50 such figurines have been found. Average height including the pedestal is 6 inches. The figures bear traces of red paint mixed with plenty of mica dust; (R.1979, ht. 5'8", Tr. D, 2 feet below surface).

*Type No. 4.*—The goddess (Pl. XIII, d) is simpler in finish than those described above. She is, as usual, painted red and stands full front carrying a pair of fish in her right hand while the left hand on the left hip is seen holding the girdle. The figure, in addition to an elaborate indistinct coiffure, heavy ear-pendants and a neck ornament, wears a garland over the right shoulder in the manner the sacred thread is worn by the Hindus. The example illustrated (R.919) is 5'7" high including the pedestal and was found in Trench H, only a foot below surface.

*Type No. 5.*—Not many examples of type No. 5 (Pl. XIII, f) have been found. The goddess has a markedly thin waist and is draped in a transparent nether garment hanging from the waist. She stands full front with right arm bent at an awkward angle and the left appears to hold the hip girdle in position. In addition she wears ear-rings, a necklace, bangles, armlets and a coiffure. The limbs are quite out of proportion and as a work of art the figure is far inferior to type Nos. 2, 3 and 4. Height of the figure (R.3075) including the pedestal is 6'5".

*Type No. 6.*—This type is represented by only one example (Pl. XII, b) of which the lower half alone has survived. It is of crude workmanship and is thickly painted with red ochre. Standing full front, she holds some objects in her right hand and the left, as usual, rests on the hip. Anklets, bangles, girdle and a necklace of which only two pendants can be seen ornamented the figure. It was found in Trench A about 5 feet below surface. Judging from its present height (4'1") the complete figure must have been about 8 inches high.

*Type No. 7.*—This figure (Pl. XII, e) which stands full front has a big knot over the head and the hair underneath is secured with a garland on the forehead. On either side of the head are what appear to be two palm trees, each with three branches and a bunch of dates (?). She is painted red and bedecked with two heavy reel-shaped ear-ornaments which hang from the lobes held by strings. She wears a garland over the right shoulder and a girdle on the skirt which hangs from the waist held in position by a waist-band. The horizontal folds of the drapery are depicted in a highly conventional manner. The hands which

rest on the hips hold some unidentifiable objects. No. R.3435, ht. 7·4" is the only complete plaque belonging to a few examples of this type.

*Type No. 8.*—Of this type only a few examples have been found and the one illustrated (Pl. XIII, a) is the best of the lot. The hair under the pyramidal head-gear are arranged in two braids falling on the shoulders. She stands full front with her right hand bent up to the shoulder holding some indistinct object. Her left hand on the left thigh is holding the two-stringed girdle worn on the nether garment the transparency of which is another proof that fine cloth was woven during the centuries preceding and following the Christian era to which period these plaques are assigned. The figure is bedecked with bangles, ear-pendants and a new type of neck-band from the centre of which hangs a circular pendant inset with a six-rayed jewel. The height of the plaque (R.3625) which was found inside a soak-well including the pedestal is 6·2 inches.

*Type No. 9.*—This cast pottery plaque (Pl. XIII, e) is distinguished from other types by the presence of a ringed and spouted jar or *Kaman-dalu* held by the goddess in her right hand. Her left hand rests to the level of the breasts. The pyramidal head-dress consists of four tiers. She is draped in a skirt over the left side of which hangs a long pointed object, probably a spear. She wears necklace, bangles, anklets and ear-rings. The figure which stands full front is 4·7" high including the pedestal.

*Type No. 10.*—The peculiar feature of this type, represented by only one example, (Pl. XII, d) is that the goddess wears a flounced skirt not noticed in any other type. She stands full front, is painted with a thick coat of red ochre and its height including the pedestal is 6·75". The workmanship is rather primitive. The plaque was found in Trench H, 3½ feet below surface.

*Type No. 11.*—Only three examples of this type have been found. The figure (Pl. XII, a) which stands full front holds a mace-like object in the right hand which rests on the hip. She is wearing a double-tiered crown, ear-rings, and a neck ornament in addition to bangles with which the entire length of the left arm is covered. The folds of the nether garment, held by a three-stringed girdle, suggest that she wears a dhoti-like garment. The plaque (R.3194) found in Trench C, 2 feet below surface, is 4·8" inches high.

*Miscellaneous Types.*—In addition to the types detailed above several fragments of plaques representing various other types have been found but for want of fuller details these are grouped under the head "Miscellaneous types" and are illustrated in Plate XIV, a-g.

*Yakshis.*—These are represented by a few examples only and the best out of the lot is No. R.407 (Pl. XV, g). This is also one of the best clay casts in the round made of paste of very fine consistency. The

left arm and body below the navel is missing. The figure wears an elaborate turban-like head-dress and is bedecked with a necklace consisting of three barrel-shaped pendants and bangles round the right wrist. She holds a round object (?) between the thumb and the fore-finger. The figure is exquisitely executed and minute ornamentation were probably finished after it came out of the mould. It may be assigned to Sunga period (circa 2nd century B.C.) and bears resemblance to yakshi figures on Bharhut Stupa.<sup>1</sup> A blind hole on the head of the figure suggests that she supported some object on the head. Height 2·9"; found in Trench C, 6 inches below surface.

No. R.1595 (Pl. XV, a) is another yakshi figure represented on cast pottery plaque. She stands full front with legs crossed. The broken arms are raised towards the head. Height 4·9". Found in Trench D, 4 feet below surface.

No. R.2062 (Pl. XV c) represents the lower portion of another yakshi figure standing cross-legged holding a chowri-like object in her left hand. Height 3·6". Found in Trench C, 1½ feet below surface.

Siva and Parvati.—This cast pottery plaque (Pl. XV, b) painted with red ochre containing mica particles is convex at the back. Two figures, a male and a female are depicted, the left arm of the male figure is thrown round the female and the right hand holds an object that cannot be identified. The female figure is resting on the right leg, the left is raised as in pose of dance. Her right hand rests on the left thigh of the male figure and the left hand on the hip. She wears bangles and an elaborate coiffure. The male figure has a well defined moon-crescent on the forehead and is easily identified as Siva and the group as Siva and Parvati (No. R.885; ht. 4·6"; width 3·15"). Found in Trench G, 1½ feet below surface.

Another fragment of clay cast in the round (ht. 3·3"), depicting a female figure seated on the lap of the male figure to her right (Pl. XV, f) may also represent Siva and Parvati in an amorous pose. I am inclined to assign this piece to the Gupta period.

Another plaque (Pl. XV, d) that deserves mention is also obtained from a mould. It represents a female and a male figure standing full front. The crowned female figure which is taller than the male stands to his right with her hand placed on the head of the young man as if in the act of benedicting. The male figure whose right hand is on the hip of the female figure is seen holding a pair of fish in his left hand, an emblem usually seen in the hand of the mother-goddess (Pl. XIII, d). The exact explanation of this group is not intelligible but from the presence of fish in the hand of the male figure I am inclined to believe that the group may mean to represent some form of the supreme *Shakti*

<sup>1</sup> Cambridge History of India, Vol. I, Pl. XXVII, Fig. 46.

in combination with a secondary male deity. Dimensions  $7'' \times 3\cdot75''$ ; found in Trench N,  $1\frac{1}{2}$  feet below surface.

*Male Figures.*—Male human figures are represented by a fairly large number of riders which were once fitted on horse or elephant backs. These crudely finished riders are of two different types. In one, the head fashioned out of a mould has a turban-like head-gear but the other type which is entirely hand-made is fitted with a circular head-dress from both sides of which hang curved plaits. These figures were just stuck to the backs of horses or elephants (Pl. XVI, 1 & 8) and are very poor examples of potters' art.

One of the male figures (Pl. XVIII, 2; No. R.596) found in the course of excavations is a torso with dropsical abdomen. This stark-naked figure wears a waist-band or a girdle round the waist and is painted red. Height  $4\cdot15''$ . Found in Trench C,  $2\frac{1}{2}$  feet below surface.

A very amusing group of human figurines (Pl. XVIII, 6, 7, 8 & 12) consisting of over thirty pieces was found in the vicinity of Structure No. 27 in Trench N mixed up with ashes and burnt clay, which probably represented all that was left of the furnace or kiln in which these pieces were baked. All are toys without heads of rather crude make but of interest as almost each one of these is either pierced with a hole in the trunk or provided with projections in which fitted separate heads or limbs. These toys with movable limbs must have provided plenty of amusement to the children. One of these holding a drum between the arms is of special interest (Pl. XVIII, 8). Locus: Trench N, 2 feet below surface.

*Model Animals.*—Large numbers of model animals that have been found constitute toys for the use of children but some of these could also have been used as votive offerings. The following animals have been identified and are listed below in the order of their popularity:—

- (1) Horse with rider.
- (2) Elephant with rider.
- (3) Monkey.
- (4) Humped bull.
- (5) Lion.
- (6) Cow.
- (7) Ram.
- (8) Camel.
- (9) Dog.
- (10) Fish.

*Horse with rider.*—Of the numerous models of horses with riders discovered, No. R.1172 (Pl. XVI, 8; ht.  $5\cdot9''$ ) is the only complete model. The horse is entirely hand made. The bridle and reins are represented by strips of clay and the mane by a ridge on the back of the neck. The rider whose face alone is cast is equally crudely made and stuck on the back of the horse without even the legs being represented. His out-

stretched arms hold the reins in a manner which suggest that horse riding was a favourite pastime with the people. These figures were painted red. Figures somewhat similar are to be seen on the gateway of the Bharhut Stupa of the 2nd century B.C.

*Elephant with rider*.—Like horses, models of elephants were also set with riders or mahauts, but only one model complete with the rider (Pl. XVI, 1; No. R.3056) has been found. Elephants found are of two types i.e., with solid and hollow bodies. Examples of the first class are disproportionate figures, crudely finished and ill-conceived but those belonging to the hollow type (Pl. XVI, 2; No. R.335) are indeed fine examples of modeller's art with ears, tusks and details of the forehead realistically shown. The head illustrated bears very faint traces of white linear pattern on the forehead showing that elephants were painted with decorative designs in much the same way as is done to this day. Traces of red paint on some of the models also reveal that these including the rider were coated over with a thick coat of red ochre which has almost entirely peeled off.

Besides these a third type (Pl. XVI, 5; length 4·7", R. 2232) of which only one example has been found, is of interest on account of its mythological character. With trunk uplifted it rests on its flat legless abdomen, has a tiny hump on the back, and wings behind the ears. Other representations of elephants are met with on the reverse of the Senapati coins, punch-marked and other coins and a square pottery mould (Pl. XVI, 3 (a) & (b); No. R.1017).

*Monkeys*.—Although several heads of monkeys have been found only a couple of complete models have been recovered. The animal (Pl. XVII, a) is depicted seated on hind legs with elbows resting on knees and hands applied to the mouth engaged in the act of eating from a tray held within the thighs. The tail is twisted up against the back. This realistic representation was obtained out of a mould. Its height including the pedestal is 3·6".

Other models made to depict monkeys (Pl. XVI, b) are unfortunately all headless but their identification is certain as a similar monkey-faced tailed figure<sup>1</sup> was found by Col. Hendley at Naliasar-Sambhar. These figures with hands either resting on the knees or holding the genital organ are provided with a long tail-like projection which together with the two legs formed a convenient tripod for the figure to stand erect, (R.463; ht. 4·3").

Numerous monkey heads obtained from moulds have also been found. These either belonged to the tailed figures described above or formed parts of theriomorphic vases (Pl. XVII, d).

*Humped Bull*.—All models of bulls found at Rairh are humped;

<sup>1</sup> Salini's Report on Sambhar Excavation, Pl. XII, b.

ordinary humpless bull being conspicuous by its absence. The excavations at Naliasar-Sambhar also did not bring to light any humpless bull. It would thus be observed that the advantages of this species over the ordinary kind were appreciated and by judicious elimination the better and the more fitted kind was selected. All models are hand-made, rudimentary, and crude and though lacking in details, the resemblance is natural enough showing familiarity that the people had with these friends of the human race. The majority of the bulls are of small size ranging from 1.5" to 3" in length. It is likely that the bull, the *vahana* or the vehicle of Siva was held in high esteem and some of the miniature models (Pl. XVI, 7; ht. 5") were used as pendants. Examples of bulls are illustrated in Plate XVI, 4, 6, 7 and 10,

*Tiger*.—Models of tigers of which only one complete and several fragments have been found are crude hand-made figures (Pl. XVII, g & j; R.1936 & R.1590). Their wide open mouths are probably intended to suggest roaring. A strip of clay was added for the tongue and the body scratched with lines to represent the stripes on the body of the beast. No. R.1936, length 2.2"; was found 8½ feet below surface. No. R.1590, length 3", head only was found in Trench D, 4 feet below surface.

*Cow*.—Two complete representations of a cow suckling her calf are found on a square pottery mould (Pl. XVI, 11a-b; R.1016) and a fragment of a hollow animal body which very much looks like a cow is the only other representation of this animal. This piece of sculpture (Pl. XVI, 12; R. 1060) with muscles and the tail displayed in a realistic manner speaks for itself the high standard that the modellers were capable of attaining.

*Ram*.—This animal is represented by only two examples. The fragmentary head (Pl. XVII, e; R.857, length 4.1") with large curved horns is indeed a ram but the other model (Pl. XVII, h, 1.2 $\frac{3}{8}$ ") whose identity is uncertain appertains more to a ram than any other animal. In this the legs are joined together and pierced with holes through which passed the axles of the wheels on which the animal was carried.

*Camel*.—The camel, so useful and common an animal in the arid regions of Rajputana is represented by only one model found at Rairh. The excavations at Naliasar-Sambhar also yielded only the neck of a camel. Does their paucity suggest late introduction of the camel or were the climatic conditions different and rainfall abundant then? These are the questions which cannot be satisfactorily answered yet but the evidence furnished by the excavations suggest that this most useful pack animal of the desert was not pressed into as much service as to-day. The crude hand-made model (Pl. XVI, 9; R. 2521) is fitted with high saddle of which only the back is left. It is 2.25" high and was found only 1½ feet below surface.

*Dog*.—This crude hand-made model (Pl. XVII, k; R.3836, length

$2\cdot05''$ ) with its tail upturned depicted in running posture looks very much like a hound with its pointed nozzle.

*Fish.*—No examples of fish in terracotta have been found but two cosmetic bottles in the form of fish (Pl. X, 11; Pl. XXI, 26) carved out of shell core are fine representations of this aquatic animal.

*Animals of uncertain species.*—Two model animals of which the specie cannot be identified are shown in Plate XVII, c, f (R.1443 and R.1338). No. 1443, (fig. f), length  $3\frac{7}{8}''$  is a curious quadruped with a crust over the head and a pointed nozzle. The eyes are represented by a hole pierced through the head. That this animal was mounted on some object is indicated by holes pierced through the length of the legs. The other model No. 1338, length  $4\frac{5}{8}''$ , is something between a deer and a goat painted red all over the body.

*Birds.*—Models of two birds only have been found *viz.*, owl and dove. The identity of the bird of the night (Pl. XVII, i; R. 686, ht.  $2\cdot75''$ ) with large circular eyes and equally large eye-balls cannot be mistaken. The feathers are indicated by irregular scratched lines and ears by slight projections above the level of the head. The dove (Pl. XVII, i; length  $6\frac{1}{2}''$ ) is painted red and is provided with two holes passing through the body immediately above the flat base. The holes were meant to take wheels on which the model was mounted. The tail, oval-shaped wings and the tuft of feathers over the head are indicated by scratched lines. Bird-chariots of very much similar nature were found at Mohen-jo-daro and are discussed at length by the late Mr. N. G. Majumdar in the Mohen-jo-daro<sup>1</sup> and Indus Valley Civilization.

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<sup>1</sup> Also see FEM, Plate LXXXI, 13 and 17.

## CHAPTER V.

### Tools and Implements.

Iron tools and implements of different types and large quantities of iron refuse weighing several maunds found in the course of excavations combined with the evidence furnished by the traces of numerous smithies and slag scattered all over the surface of the ruins suggest that Rairh, in all probability, was a metallurgical centre where industrial operations on a moderate scale were conducted. The metal workers of Rairh appear to have specialized in the metallurgy and manufacture of iron tools and two lead ingots cast in an ordinary *shakora* show that lead was also refined and turned into ear distenders of which several examples have been found. Other metals found are bronze, silver and gold. Bronze is abundantly met with in the form of articles of toilet, personal ornaments etc. Silver is represented in the form of punch-marked coins alone and the only objects of gold, employed for the manufacture of ornaments, are a small finger ring, a hair-pin (?) and an ear-pendant of bronze plated with a thin gold leaf.

The richness of the inhabitants of this small industrial centre may be judged by the discovery of five buried treasures consisting of 3075 silver punch-marked coins. It is likely that iron tools and implements manufactured at Rairh were distributed from this centre to various other sites. In the present state of our knowledge it is not possible to say what the sources of supply of the iron ore were but I think there must have existed some ancient mines, however scanty in yield, in the vicinity of Rairh which had probably been exhausted by the end of the early centuries of the Christian era, as without continuous and easy supplies, the site could have no attraction for an industrial centre such as Rairh was.

Iron tools and implements found are in a highly corroded state due to their having remained embedded in a mound situated in a bend of the river and consequently subject to greater effects of moisture. On account of their highly incrusted surfaces it is not possible to say whether some of these bore any marks or decoration. Included among the weapons are sword blades, lance and spear-heads, small daggers, knives and a few arrow heads and tools comprising of sickles, axes, adzes, nails door fittings, rings and fragment of door chain have been found (Pl. X, 1—5; Pl. XIX & Pl. XX, 1—13 and 16).

*Sword*.—The only weapon of offence found is represented by fragments of sword blades but their surfaces and edges are so much corroded that it is well nigh impossible to say whether these weapons were double or

single-edged. The tang of No. R.1558 (Pl. XIX, 2; Pl. XX, 7) measures 3·5" and the width of the blade at its widest is 2·8". Its present length including the tang is 12·5" but what the actual length was is not possible to judge. R.1451 (Pl. XIX, 10; Pl. XX, 4) is another fragment of sword blade only 6 inches in length.

*Lance and Spear-heads.*—Lance and spear-heads were cast and then shaped by hammering. Of these two types have been found. To the first type belong a number of pointed dagger-like blades (Pl. XIX, 1 & 14; Pl. XX, 2 & 6, Nos. R.2545 and R.2293), with and without the mid-rib and the second variety is represented by weapons (Pl. XIX, 11 & 7, R.2528; Pl. XX, 13, R.1917) which had almost flat blades. No. 1 in Plate XIX or No. 6 in Plate XX (R.2545) is a tough lance head over 15 inches long, provided with a strong mid-rib and a tubular tang in which the lance was fitted. Another example without the mid-rib but with the same type of tang, is illustrated in Plate XX, 2 (R.1563, length 9·3"). No. 13 in the same Plate is provided with a solid tang which was fitted into the lance.

Daggers that have been found are cast and some of these are provided with a raised band between the blade and the tang, (Pl. XIX, 12 & Pl. XX, 3 R.667, length 6") while others are without the band (Pl. XIX, 4, R.1223, length 9"). Their thick blades slope towards the edges.

*Knives* with curved or straight blades (Pl. XIX, 13, R.2186, length 5·7") have been found but on account of their highly corroded condition no idea of the sharpness of the cutting edge can be formed.

*Arrow-heads.*—Very few arrow-heads have been found. These were cast. No. R.1612 (Pl. XIX, 8 or Pl. XX, 11) and No. R.1728 (Pl. XIX, 9) are provided with tangs and were inserted in the arrow but No. R.2184 (Pl. XIX, 5 or Pl. XX, 9) which is V-shaped and without the tang was presumably secured to the arrow by some kind of cementing material.

*Sickles.*—Crescent-shaped sickles provided with long tangs (Pl. XIX, 6; Pl. XX, 10) of which only one nearly complete and a few broken pieces have been found, were fitted with wooden handles. The inner edge used for cutting is plain without dentations.

*Axes and Adzes* (Pl. X, 1 & 2 & Pl. XX, 1 & 16) found are of almost the modern shapes with holes in which wooden shafts were fitted. Ploughshares, nails (Pl. X, 5), chisels (Pl. X, 3), rings and door chains (Pl. XX, 12) are among other iron objects recovered.

*Needles.*—A few examples of needles found at Rairh are made of bronze. It is likely that needles were also made of iron but none has survived on account of the destructive effects which moisture produced on small iron objects. The needle in Plate XXI, 16 (R.1789, length 4·1") is round in section with a circular eye pierced in the blunt end. An

example of an awl (Pl. XXI, 11, 6·7" in length) that has been found is also made of bronze but roughly finished awls were also made of bone.

*Handles*.—The majority of the weapons must have been provided with wooden handles but of these no traces are left. A few handles fashioned out of shell (Pl. XXII, 17, 19); and ivory (Pl. XXII, 18) have survived. With the exception of the ivory handle the wavy ornamentation of which was achieved with the hand, others were turned on the lathe. A handle that was once riveted to a small pan (Pl. XX, 5) is made of bronze.

*Stone Balls*.—A number of roughly hewn stone balls ranging in diameter from 1·3" to 3·4" have been found. As regards their precise use nothing can be said with certainty but it may be that these were used as ballista balls, although no mechanical contrivance for hurling them has been found. Some of the small balls could have been used as marbles. One of the stone balls (Pl. XVIII, 10) made of hard red stone is perfectly round with a very highly polished surface and two more made of gneiss (Pl. XVIII, 9) are also fine examples of spherical stone balls. The care bestowed and the pains taken in the finish of these balls preclude the possibility of their being hurled away and their sizes are too big for being used in the marble game. It is likely that these perfectly round balls were used for divination or for conjuring purposes as is done to this day by magicians and mendicants in connection with healing of diseases etc.

*Hones*.—A few rectangular stone pieces used as hones for sharpening tools etc. have been found. The grinding surface show marks made by the rubbing of tools.

*Querns*.—Neither grinding tools of the type of pestle and mortar nor hand-mill of the round type have been brought to light at Rairh. Four-footed tabular saddle querns of rectangular shape made of hard-stone have been found together with pestles which were used for grinding spices, corns etc. (Pl. XVIII, 5). The pestles are of two kinds, *viz.*, cylindrical with tapering ends and double convex in section. The querns have both concave and plain tops with either smooth or chiselled surfaces. Smooth surfaced stones must have been employed for grinding materials of fine consistency and chiselled ones with equally rough rollers for grinding grain, spices etc. Similar grinding stones were also found at Naliasar-Sambhar.

*Bone-spikes* (Pl. XXII, 16), made from bones and horns of animals are found in large numbers scattered all over the area. These have sharp pointed ends tapering from about the middle and very sharp knives must have been employed to cut the bones. Horns and shin bones of animals were cut lengthwise and pieces ranging from 2" to 5" in length were fashioned into spikes. What purpose did these serve is difficult to say. Pieces similar to these were found at Naliasar-Sambhar and the late Rai

Bahadur Daya Ram Sahni, C.I.E., thought that these were used as stiles.<sup>1</sup> These pieces could also have been employed for the purpose of writing on wooden slates rubbed with chalk or some other washable material. They were manufactured in large quantities is shown by the discovery of a collection of over several hundred found in the southern portion of Trench B, in the close proximity of which numerous animal bones stocked by the cutter were also discovered.

*Lamps*.—Small pottery lamps of the beaker type so commonly met with on other ancient Indian sites must have been common enough at Rairh but only a few examples have been discovered. Small pottery dishes (Pl. VII, 24—27) were also used as lamps is shown by the traces of lamp-black which was found adhering to several of these.

*Blow-pipe*.—Only one example of a bronze blow-pipe (Pl. XXI, 13, R.3277) provided with a double-ringed projection for pressing between the lips and tapering towards the exhaust end has been found. It is very much similar to blow-pipes used by the gold and silver-smiths till this day and is 4·5" long with holes at either end measuring 0·2" and 0·1" respectively.

*Bridle*.—Two bronze pieces (Pl. XXII, 13) each 3·6" long appear to be parts of a bridle. These were fitted on the sides of the mouth of a horse with bit fitted in one of the corresponding pair of rings and rein in the other. Both the pieces are exactly similar to each other in detail and seem to have been cast in the same mould.

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<sup>1</sup> Sahni's Report on Sambhar Excavations, p. 22.

## CHAPTER VI.

### Personal ornaments, Dress etc.

*Dress*.—The dress worn by the people of Rairh does not seem to have very much differed from the modern costumes worn by the people in Rajputana. The male dress which was simple enough consisted of a short *dhoti* (Pl. XV, d) and a jacket (Pl. XV, b) in addition to a small turban (Pl. XV, d) worn on the head. The female population generally draped the lower part of the body in a skirt (Pls. XII and XIII) suspended from the waist or a sari-like garment thickly plated on the front side (Pl. XII, a). The latter costume is depicted on a few pottery representations and seems to be of foreign origin but the skirt was as commonly worn as is done to this day in Rajputana. In addition to the waist-band that held it in position a fairly loose girdle consisting of two or three strings of beads, was worn on the skirt. This hip girdle which also served as an ornament was as indispensable a part of the ladies outfit as it is to-day. The earliest proto-type of these girdles made of long tubular carnelian and small copper beads was found at Mohen-jo-daro in the Indus Valley and though not a very common ornament in the 3rd millennium B.C., it gained great popularity in later times is shown by the discoveries at Rairh and its continuation till the modern times. The upper part of the body including the breasts was either left uncovered or it may be that some very close fitting garment, like the *brassière* of to-day, was worn. Except in one instance (Pl. XIII, b) which shows that a *dopatta* (sheet of cloth for covering the upper part of the body) covered the upper part of the body including the head, all other representations are without this garment and are bedecked with various types of head-dresses ornamented with garlands etc.

Although there is no direct evidence to prove this but from the representation in Plate XIII, b and f, it appears that the weavers of Rairh were capable of turning out fine transparent cloth. The only remnants of textile material brought to light at Rairh consisted of traces of cloth adhering to a number of silver punch-marked coins among the hoard of 535 coins. This hoard was secured in a piece of cloth before being put into the vase that was found to contain it and coins with traces of cloth adhering to them were carefully secured and submitted for examination to Dr. Nazir Ahmad, M.Sc., Ph.D., Director, Technological Laboratory, Indian Central Cotton Committee, Bombay, who has very kindly tested the material and furnished me with a report thereon. He has found the material to be true cotton. In reproducing the following

extracts from his report, I very thankfully acknowledge the help rendered by him.

(1). "*Weight of one square yard of cloth*"—From the weight of threads, the number of threads per inch, the weight of one square yard of cloth was computed. This turns out to be 799 oz. per square yard, showing that a fairly heavy cloth was used presumably on account of its strength to hold safely the heavy coins.

(2). *Nature of fibres in the yarn*—Fibres taken from the yarns were carefully examined under the microscope and were found to possess the characteristic convoluted appearance of cotton fibres. Most of the fibres were of the highly mature type as are characteristic of the indigenous types such as "Bengals." Fibres of no other material besides cotton could be detected under the microscope.

(3). *Threads per inch*—It may be stated that, on the average, the cloth used in wrapping these coins had 21 thread per inch in one direction and 27 in the other. The yarns on these coins are of very low counts, especially as compared with those in the fabric on which a report was issued on the 23rd July, 1936.<sup>1</sup> This may partly be due to the inherent coarseness of the cloth used for wrapping the coins and partly to the fabric having absorbed some of the salts formed in the corrosion of the coins."

The use of cotton in India goes back to about the 4th millennium B.C., the earliest cotton cloth fragment having been found at Mohen-jodaro. A fragment of cloth found at Bairat was also found to be of true cotton and the Rairh discovery has further established that cotton was grown in the arid regions of Rajputana as well and woven into cloth. Numerous examples of pottery spindle-whorls show that spinning was very commonly practised. ✓

*Personal Ornaments*.—The idea of the extant to which jewellery was worn by the female population of Rairh is fairly conveyed by the pottery plaques (Pls. XII—XV) representing the mother-goddess and yakshi figures. Bangles, bracelets, anklets, necklaces, ear-pendants and girdles were commonly worn but whereas large number of fragments of bangles, several ear-pendants and numerous beads of various designs cut from different kinds of coloured stones for necklaces and girdles have been found, no anklets have been discovered. The head-dresses of some of the figures bedecked with jewels reveal that these were ornamented but no examples of head-ornaments have been found.

Bangles were made of shell, bronze and terracotta (Pl. XX, 15) but those of the latter material are so few and so small that these could only have served for the children. The material most commonly employed for manufacturing bangles is *Sankha* or conch-shell which must have

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<sup>1</sup> Excavations at Bairat by D. R. Sahni, p. 22.

been imported from some sea-side places. The majority of the bangles cut from the walls of the *shankhas* are plain but a few (Pl. X, 12—19) are decorated with fine incised geometrical patterns which were either left blank or inlaid with colours. One or two pieces (Pl. X, 18) are fitted with copper rivets showing that plating of bronze or some other metal was used for decorative purposes. As compared with shell bangles only a few made of bronze (Pl. XXI, 8 & 9) have been found. These are solid and were made either by hammering bronze rods or wire. One of these (Pl. XXI, 9, R.2335; diam. 1·9") show faint traces of gold and was probably covered over with a thin plating of the same metal. A peculiar form of ornamentation on bronze bangles was achieved by studding crystals of carnelian embedded in a thick coat of lacquer applied on to the surface of the bangle (Pl. XXI, 4). Shell bangles were in great demand and this may naturally be expected as this material besides being durable was not so costly as bronze. Even to-day conch-shell bangles are greatly patronized by the poorer class of people in Rajputana and Gujarat.

Beads for necklaces and girdles were fashioned out of gold (only one gold bead has been found), carnelian, onyx, rock-crystal, chalcedony, amethyst, turquoise, lapislazuli, beryl, acquamarine, glass, shell and pottery. Dr. W. Chowdhury, Ph.D., F.G.S., State Geologist, Jaipur, who very kindly examined the various stone beads reports that stones such as carnelian, chalcedony, rock-crystal and onyx were imported from Cambay (Bombay), acquamarine, beryl and amethyst from Malpura hills in the Jaipur State, lapislazuli from Kishangarh and turquoise, of which only a single bead has been found, from Nishapur (Iran). Shapes of beads manufactured are illustrated in Plate XXIII. Carnelian stone was in great demand and beads of this stone deserve special mention as many (Pl. XXIII, 1—6 and 14—18 and Pl. XXII, 18—22) of these, bear patterns etched in white. The earliest examples of etched carnelian beads have been found at Mohen-jo-daro in the Indus Valley and at Ur in Mesopotamia but this form of decoration was very commonly practised by the artisans of Rairh is shown by numerous examples found. The decoration consists of white lines or dots achieved by painting the beads with a white substance (carbonate of soda?) that was burnt in. Faceted beads were made by boring crystals of carnelian in natural form. The high polish and perfect roundness of some of the beads show the standard that the lapidaries were capable of achieving. Beads of pottery found in fairly large numbers were probably used by the poorer class of people who could not afford semi-precious stones. Glass beads found (Pl. XXIII, 39) show that glass of good quality was manufactured.

*Ear-pendants.*—A peculiar kind of ornament (Pl. XXI, 1, 5 & 7) very commonly found at Rairh, and made of pottery, lead, bronze and

bronze covered over by a thin sheet of gold plating, rock-crystal and glass, is a reel-shaped ear-distender provided with a concave groove round the edge. The ornament was probably suspended from the punctured lobe of the ear held by a string that passed round it (see Pl. XII, e; type No. 7). Distended ear-lobes were probably considered a mark of beauty as in later times the figures of Buddha are invariably depicted with elongated lobes. Pendants of lead (Pl. XXI, 5) were either solid or coiled from lead ribbons, those of bronze (Pl. XXI, 1) hollow but with concentric design on the sides imitating coiled lead ribbons. Examples made of rock-crystal are solid pieces bearing very high polish and cut to geometrical precision. Other pendants or ear-rings of bronze though of about the same width and design, were fashioned like rings (Pl. XXI, 7) and worn in the same manner as the distenders described above. Pendants were probably also formed by stringing beads on threads. If the distended ear-lobes were considered a mark of distinction, I should think that solid pendants such as of lead were used to obtain the required elongation of the lobes and ear-rings of lighter variety were worn after this had been achieved.

A few bronze finger-rings of no special interest and one small ring made of gold (Pl. XXI, 2) besides a few of shell have been discovered. Another ornament of which mention need be made is a central flat oval piece of agate that once adorned a necklace. This is pierced with holes on the edges from which tiny beads were suspended and bears very high polish on one face only which shows that the piece was probably inset in some metal object. A broken gold pin (Pl. XXI, 3) is the only other gold object found.

*Toilet articles.*—Flesh rubbers of pottery (Pl. XXI, 24) of round and rectangular shapes, with rough surfaces imitating pumice-stone found in large numbers show that these were a very common article of toilet. Other toilet articles include antimony rods (Pl. XXI, 10, 12 & 17), small bronze bottles (Pl. XXI, 6 & 23), a circular bronze mirror (Pl. XXI, 14) and a couple of antimony holders in the form of fish (Pl. X, 11 & Pl. XXI, 26) carved out of conch-shell core. Antimony rods or kohl-sticks with a single exception were made of bronze but unlike the modern rods which taper towards the ends, those in vogue at Rairh, were thinner in the middle and provided with thick rounded ends (Pl. XXI, 10). The only exception which is of ivory has also thick rounded ends. Two other types illustrated with the above (Pl. XXI, 12 & 17) are differently designed. Their tapering cylindrical ends were alone used for blackening the eye-lids and decorated tops served as handles. Their average length ranges from 4·5" to 6". Miniature bronze bottles (Pl. XXI, 6 & 23), are unlike any form met with in pottery, stone or metal vases. With their flat bases and elongated necks these could have been used very conveniently as kohl or unguent holders.

Two other cosmetic holders (Pl. XXI, 26; Pl. X, 11) are exceedingly artistically designed out of the cores of conch-shell such as was left after bangles had been cut out from its walls. These are in the form of fish and are made in two pieces. The larger piece which constitutes the body with the fins accurately represented is decorated with incised dots and geometrical patterns and the smaller piece forming the tail is joined to the body by means of a bronze pin secured in blind holes. The broader end of the core which represents the mouth was hollowed as far as the piece permitted. The length of the piece illustrated is 5'8". Stoppers were also carved out of shell cores (Pl. XXI, 25) but none that fitted these containers have been found.

Another article of toilet is a handled circular bronze mirror (Pl. XXI, 14) with a recessed face. The recessing was intended to protect and preserve the polish on the reflecting side. The small pointed tang soldered to the recessing on the mirror was probably provided with a wooden handle. Metal mirrors were in use from very early times having been found at Mohen-jo-daro, in Syria, Egypt and several sites of the historic period in India. The mirror found at Rairh is 5" in diameter with a recessing about 0·3" in thickness. Its reflecting surface is not perfectly plain, being thicker about the centre and as such would have given a distorted image. Articles such as kohl sticks and jars suggest that the women and perhaps men also, used kohl for blackening their eye-lids. Whether lamp-black mixed with a fat or antimony powder was used as an eye-paint is difficult to say as no traces of any kind have been found. Numerous steatite caskets (Pl. IX) found were also probably used for keeping cosmetics, jewellery etc.

*Casting dice.*—Ivory, bone and stone were employed for the manufacture of bar-shaped casting dice of which seven examples have been found. These are of the usual shape in use even to this day. Their sides are marked with one, two, three and four marks respectively. Dicing was one of the favourite amusements of ancient Indians and several illusions occur to this play in the Rigveda and Mahabharata. The earliest type of dice found at the Indus Valley sites are cubical and bear one to six marks on different sides. In the modern game of dicing three pieces are played together and there is no reason to assume that it was not so in ancient times although our pieces were found separately on different parts of the excavations. The dice illustrated in Plate XXII, 14, is of steatite, 3 $\frac{7}{8}$ " long.

Other ivory pieces (Pl. XXII, 12 & 15) decorated with incised geometrical patterns on three facets and provided with grooves on the fourth side are very much similar to ivory casting sticks found in large numbers at Mohen-jo-daro. Their precise purpose cannot be ascertained but they would seem to have been employed as decorative pieces attached to some object.

*Offering or Votive tanks.*—Numerous fragmentary and complete examples of votive tanks found, are made of clay alone. Their exact purpose cannot be ascertained. It is likely that just as the digging of a tank or well is considered an act of great merit, the poorer class of people who could not afford to construct these; satisfied themselves by offering models of tanks to the gods to evoke their favour. The substitutes of model animals as offerings by those who could not afford the sacrifice of a living animal is a very ancient practice going back to the pre-historic times. Recent excavations at Rajghat and Ramnagar have also yielded varieties of votive tanks made of pottery and it is hoped that material, accumulated from various sites, will lead us to understand their precise use. The following different types of tanks have been found:

*Type No. 1*—is a plain circular receptacle with various aquatic animals stamped at the bottom and with lamps and birds perched on its high walls.

*Type No. 2*.—To this type belong circular tanks divided internally into four quadrants by partition walls. The point of intersection supports a shrine with one to four chambers, surrounded by a walled-in enclosure (Pl. XXII, 1).

*Type No. 3*.—In this type the shrine is placed against the side of the tank, instead of in the middle, supported by two pillars (Pl. XXII, 3).

*Type No. 4*.—Only a broken half of this type has been found. This oval-shaped tank is divided into four compartments by partition walls

In the absence of structural remains the model shrines also afford us some information about the construction and plan of houses (see page 7).

*Model Chariots.*—That wheeled toys were popular enough is shown by the discovery of large number of pottery wheels (Pl. XXII, 9) and a few examples of dove-like birds (Pl. XVII, i) pierced with holes on the sides to take the wheels. Bird-chariots of which a few examples were found at Mohen-jo-daro have an amazing similarity to those found at Rairh. Only one model of clay cart-frame has been found (Pl. XXII, 11) but two well-preserved models of chariots of bronze (Pl. XXII, 6) and a couple of wheels of the same material (Pl. XXII, 7) give a vivid idea of the types of chariots then in vogue. These examples without the canopy are indeed among the earliest types of chariots belonging to the historic period; the earliest chariot belonging to the 3rd millennium B.C. having been found at Harappa. The wheels and the frames, though found separately, admirably fit each other. The spoked wheels were fitted to an axle which passed through the rings provided beneath the body of the chariot. One of these complete with the yoke (Pl. XXII, 6, 14") was left open at the back and provided with high sloping and

volute sides. The other model without the yoke is also open at the back and is provided with curved mud-guard like projections on the sides (Pl. XXII, 8, width 3·2"). It is fitted at the back with a circular projection composed of 11 bars, an arrangement which kept down the weight of the chariot with additional advantage of providing more space for sitting or luggage.

*Pottery Cones etc.*—A fairly large number of truncated pottery cones that have been found are either pierced with a hole at the converging end or are without the hole (Pl. XXII, 10). I am inclined to think that those pierced with holes were used as pendants and these together with large pottery beads (Pl. XXIII, 35—37) were strung into neck-bands for the ornamentation of domestic animals. As regards the other variety it is likely that these were used in some sort of game.

*Pottery tablets*.—What the purpose of the pottery tablets was is not possible to say but the possibility of their being employed in some sort of game may not be precluded.

*Bell*.—Unlike the present day bells which are provided with hooks at the top of the interior for suspending the clapper, this bell (Pl. XXII, 2, R.1152) is pierced with a hole on one side of the handle through which the clapper tied to a piece of string was held. Its height is 2· $\frac{3}{4}$  inches.

## CHAPTER VII

### Coins and Seals

As has been previously remarked, archæological importance of Rairh came to be known as a result of an incidental discovery of 326 silver punch-marked coins. Systematic excavations have further yielded four more hoards each consisting of 99, 132, 535, and 1983 coins. This entire collection of 3075 silver punch-marked coins is now the largest found from any single site throughout the length and breadth of the country. Its importance is still further enhanced as besides being one of the few whose provenance is precisely known, the collection is composed of several new varieties. Some of the types are so well preserved that they appear to be fresh from the mint, while others are greatly worn out on account of having remained long in circulation.

*Punch-marked coins.*—With a view to familiarize the reader with the salient features of this earliest known Indian currency,<sup>1</sup> a short note on the origin, etc. of punch-marked coins will not be devoid of interest. The coins termed as 'Punch-marked' anciently known as *Dharna*, *Purana*<sup>2</sup> or *Pana*,<sup>3</sup> are so designated because the symbols on them are punched or struck not by means of a single die that covered the whole face of a coin but separately stamped by small dies at one and the same time. The punches thus struck are impressed irregularly on the surface resulting in a certain amount of confusion on account of over-lapping of symbols, but a little patience and practice is all that is needed to differentiate between various symbols, each one of which is a neat piece of minute engraving beautifully executed. Equally indifferent were the minting authorities with regard to the shape of the coins which are irregular, long, rectangular, oblong and roughly circular. But whereas no care or attention was bestowed upon the shape of the coin and confusion produced by the symbols thereon, the weight of each coin was kept under control and this was achieved by clipping or cutting round the edges. Silver punch-marked coins were struck to the scale of 32<sup>1</sup>/rattis or 57 grains or 3<sup>3</sup>/<sub>4</sub> grams.

Coins of the square variety were made from a sheet which was cut into strips of the required width and further subdivided into pieces of

<sup>1</sup> For literature on punch-marked coins see works by Cunningham, Smith, Theobold, Bhandarkar, Spooner, Walsh, Durga Persad, Allan, Kosambi and Bhattacharya.

<sup>2</sup> Manusmriti, Chapter 8, Slokas 135 and 136.

<sup>3</sup> Kautily's Arthashastra, Book II, Chapter 12, Sloka 27.

<sup>4</sup> See Numismatic Supplement No. XLV, JASB, XXX, 1934, Article 317 by Durga Pershad.

approximately the desired weight. To bring them to the exact specified weight the pieces were clipped on the corners. The circular coins seem to have been introduced at a later date and were made either by cutting blank circular pieces from a sheet or by hammering globules of the desired weight, but both the square and round coins continued to be in circulation at one and the same time.

As a rule, each coin bears five symbols on one side and this is designated the obverse. The reverse side is either blank or marked with one, two or more small stamps. The same punches appear over and over again on the obverse side but coins with similar reverse stamps do not necessarily have the same obverse and it is this repetition of groups of symbols on the obverse which has enabled scholars to classify the series under different classes, groups and varieties. Of the five symbols one is always the Sun and the other a variety of the six-rayed symbol consisting of a circle surrounded by three (rarely two) arrow-heads and three other symbols such as taurine, 'dumb-bell', fish, taurine in an oval, etc., but there are a few exceptions on which these two symbols are replaced by others. As to the meaning of the symbols nothing can be said at present, most of the designs are taken from the animal or plant world and others are highly conventionalized forms of some forgotten pictographic symbols. It is of great interest to note that a careful examination of the symbols and the pictographic script occurring on the seals of Mohen-jo-daro<sup>1</sup> and Harappa and belonging to about the 3rd millennium B. C. has revealed that over two dozen symbols bear a close resemblance to each other. The group of symbols on the punch-marked coins do not appear to be inscriptions in any sense but this close similarity cannot be easily set aside and I am of the opinion that a closer connection exists between symbols on the punch-marked coins and the Indus Script than hitherto believed.

The Punch-marked coins are far from being primitive series. The five symbols on the obverse may represent the board of five officials in charge of the issue of each coin and small stamps on the reverse probably represent the mint marks struck each time the coin passed through the mint after re-examination. Each symbol may thus represent the signet of an official. The Sun may represent the king, the next commonest symbol ☰ and its various varieties the next most important official, and other symbols the marks of other officials of importance or marks of the mint, locality, etc. Such regular series of coins with an elaborate system of stamping could only have been issued by a central Government authority.

As regards the date of these coins not much help is available from literary references met with in the ancient Hindu and Buddhist literature.

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<sup>1</sup> JASB, XXX, 1934, Numismatic Supplement, No. XLV, Pls. 28, 29 and 30.

They are mentioned by Manu and Panini, both anterior to Alexander, i.e., the last quarter of the 4th Century B. C. Manu used the term *Purana* (the old) for the coins, a term which seems to indicate that he was aware of earlier issues which were probably of a different weight and type. In the days of Manu the standard weight was 32 *raktikas* but coins of the standard weight of 24 *raktikas*, i.e.,  $\frac{3}{4}$ th of a Purana have also been found and these probably belonged to a period prior to Manu. Numerous references in the *Jatakas* and other Buddhist literature show that coins were probably in circulation in the life time of Buddha. The money changer, we are told, in the parable of Visuddhimagga<sup>1</sup> would know at once at what village, town, city, mountain, river bank and by what mint master a coin was struck. Such close familiarity could only have been achieved by professional money-changers but the statement proves beyond doubt that punch-marked coins were not a local issue and various mints spread over a vast area were engaged in their issue. The date of punch-marked coins may be provisionally placed between the 6th and the 2nd centuries B. C. The proverbial riches of the Nandas may be ascribed to the issue of coins on a large scale.

Hoards of punch-marked coins have been found at over forty different places in various parts of the country from Peshawar in the north to Trichinopoly in the south and from Palanpur (Palanpur State, Bombay Presidency) in the west to the Midnapur (Bihar) in the east. Geographical evidence available shows that these coins were in circulation in the extreme north-west of India including Afghanistan, valley of the Ganges, Rajputana, Central India, Bombay Presidency and southern India up to the mouth of the Godavari, i.e., within the regions that fell within the domain of the vast Mauryan Empire, and the chronological evidence available from some hoards which have furnished datable inscribed coins of the Greek, Indo-Greek, Kushan kings, etc., and uninscribed cast coins of the Eran and Ujjayini types, though of a scanty nature, leads to the conclusion that although coins were known long before the Maurya period, the majority of the issues were minted under the central authority of the Mauryan kings. Their period of maximum circulation may be fixed at the 3rd and 2nd centuries B. C. and it is likely that they continued to remain a legal tender and in circulation till a later date. Most of the treasures unearthed seem to have been buried at the time of the collapse of the Mauryan Empire which took place at the beginning of the 2nd century B. C. and this date may also be taken as the closing chapter in the history of the issue of punch-marked coins.

All the five hoards found at Rairih were contained in earthen-ware vessels of the types illustrated in Plate VIII, fig. 6, 8 and 9. Trench A

<sup>1</sup> A. S. R., 1913-14, p. 226, Bhandarkar, Indian Numismatic, p. 9 and 147.

(Pl. VI) yielded two hoards of 326 and 99 coins at a depth of about two to four feet below foundations of late period structures and the remaining three hoards were unearthed in Trench O (Pl. V) in the vicinity of soak-wells Nos. 5, 6 and 7 about 3 to 4 feet below the surface of the mound, at a level which very nearly approximates to the bottom of the long drain in D.D. (2), belonging to the second period. None of the hoards have furnished any datable inscribed or uninscribed coin to enable us to fix their chronology with certainty but on basis of stratigraphic evidence all the hoards are assignable to the intermediate or 2nd period of occupation. Their find-spots appear to be temporary places of deposit where the treasures were concealed probably on account of some imminent danger and catastrophe which befell the town. About 30 coins out of the hoard of 535 were found to bear traces of cloth which on examination proved to have been the remnants of coarse cotton cloth.

In presenting a tentative classification of the punch-marked coins (Plates XXVII to XXXVI) I have adhered as much as possible to Allan's system but as several new symbols and types have come to light, I have, without giving new nomenclature to such varieties, added 'New' for type, etc., and in this manner have endeavoured to compress as much information as is possible within the compass of a short report till the publication of a special monograph which the collection deserves and is being taken in hand. I am confident that shortcomings in a concise work like the present will be overlooked.

*Surface coins.*—Apart from silver coins of the punch-marked variety, a large number of copper coins recovered have immensely enriched the Rairh numismatic collection. The majority of copper coins were picked up on the surface by labourers set apart for this purpose, only a small percentage having been found as a result of actual digging. I took care to have almost every square yard of the surface scanned and this laborious process yielded a rich harvest of coins, a number of which are really interesting and unique issues. This collection consists of a few silver punch-marked coins, over three hundred coins of the Malava tribe, 14 coins of Mitra kings, 6 Senapati issues, 7 *Vapu* coins, a broken coin of Apollodotus, 189 uninscribed copper coins, a couple of Indo-Sassanian coins of base silver belonging to the mediæval Hindu period, and a coin of Muhamed II, the Khalji Sultan of Delhi.

*Malava Coins.*—(Pl. XXVI, 1-5). Small Malava coins are of the type well known to numismatists and previously found by Carlleyle during his tours in Eastern Rajputana in the year 1872-73 (Vol. VI, p. 176) at Nagar or Karkota Nagar (only 34 miles crow-flight distance from Rairh), in Uniara Thikana in the Jaipur State. He found "Coins lying as thick as sea-shells on the shore" and recovered about 6,000 coins of

which the majority remain unaccounted for; the rest are contained in the coins cabinet of the Indian Museum, Calcutta.

In the range of Indian coinage the coins of the Mālava tribe occupy an enigmatic and curious position. Nothing is known with certainty about the origin of this tribe but this much is known that the Malavas were indeed one of the most powerful and asserting of the few tribal powers that continued to govern themselves under some form of republican constitution, under the suzerainty of the Central authority of the Mauryas, Kushans and later on the Gupta kings. The earliest mention which appears to refer to the Mālava tribe is made by Alexander's historians as 'Malloi.'<sup>1</sup> This tribe which was in the occupation of the territory between the lower Ravi and Chinab rivers offered strenuous resistance to Alexander's retreating army and suffered severe defeat and loss at the hands of the Macedonian. On account of constant stream of Greek and Kushan invasions that followed in the wake of Alexander's campaign, the Mālavas were forced to retreat to the lower reaches of the river Indus and finally came to settle down in about the 2nd century B. C. in what may be roughly stated as a limited area in Eastern Rajputana. The powerful influence and important position that this tribe commanded is shown by the fact that they gave their name to the region by ousting its ancient name of Avanti (Capital Ujjain) and handed down to later India its first persistent era, the so-called Vikrama era, which is still the common era of Northern India. The Mālavas who survived through and after the Mauryan Empire were defeated by Samudragupta (Circa 330-6 A. D.) and probably lost their independence in Chandra Gupta II's Western campaign (Circa 395 A. D.).

The coins of the Mālavas bear legends in Brahmi script of about the 2nd century B. C. and appear to have remained in circulation to about the close of the 2nd century A. D. They are usually inscribed "Mālavanamjaya"—but coins with names of chiefs are also met with. The names met with are *Mapaya*, *Majupa*, *Mapejaya*, *Magajasa*, etc., quite unintelligible and unlike any Indian, Huna or Saka names.<sup>2</sup> The distinguishing feature of the Mālava coins found at Rairh is a wavy snake or river-like symbol found on coins bearing the epigraph "Mālavanamjaya". A group of 7 square coins, known for the first time, bear the legend *Vapu* in early Brahmi characters. The attribution of these *Vapu* types is intermediate between the period of punch-marked coins and cast coins, *viz.*, about 250—200 B.C. It is likely that *Vapu* is another hitherto unknown name of a Malava Chief.

*Senapati Coins.*—(Pl. XXVI, 6-8). A group of six coins (5 rectangular and one round) bear the epigraph "Senapati Vachhāghosa" in

<sup>1</sup> Cambridge History of India, Vol. I, p. 375.

<sup>2</sup> Smith's Catalogue of "Ancient Indian Coins."

early Brahmi characters of about the 3rd-2nd century B. C., which may be rendered "Of the Commander-in-Chief Vachhāghosa". This unique type of hitherto unknown issue is of exceptional interest as Pushyamitra, the founder of the Sunga dynasty, who became king by treacherously assassinating (Circa 185 B.C.) the last of the Imperial Maurya king, named Brihadratha, held the same rank.

*Coins of Mitra Kings* (Pl. XXVI, 9-14) and *seals* (Pl. XXVI, 20-24) have been studied by Mr. S. K. Dikshit, M.A., a research scholar who worked on my excavations at Rairh and his note is published below:—

"The coins found at Rairh are of considerable importance for the students of Ancient Indian History, inasmuch as they offer some clue to the elucidation of some knotty problems in connection with the so-called 'Mitra' kings, and incidentally with the Śunga dynasty of the Purāṇas. The kings represented by the present collection are Sūryamitra, Brahmamitra and Dhruvamitra, whose names are not unfamiliar to us from the 'Mitra' coins of Kanauj, Pāñchāla and Mathurā. Thus the coins bearing the name of Sūryamitra are found in the series ascribed to Mathurā, Kanauj and Pāñchāla, those of Brahmamitra in Kanauj and Mathurā series, and those of Dhruvamitra in Pāñchāla series. The coins, therefore, a priori show that the 'Mitra' kings who issued the coins found at Rairh were identical with those who issued the coins of all those localities. Our series connects the series of Kanauj, Mathurā and Pāñchāla.

This can be borne out by a detailed examination as well. Thus, two symbols on the obverse of Sūryamitra's coins in Kanauj series (*viz.*, the tree-in-railing and Ujjain symbols) are identical with two obverse symbols on the first variety (Pl. XXVI, 9), of his coins found at Rairh. The Kanauj (?) series has on the obverse only one additional symbol, *viz.*, the 'triangular Standard' or what I choose to call the 'life-symbol'. In the Rairh coins of Sūryamitra (first variety), it is counter-marked on the reverse.

The second variety of his coins at Rairh, however, show the 'life-symbol' (together with the Ujjain symbol) on the obverse, just as in the Kanauj (?) series. Palaeography of the coins of both the series of Sūryamitra or other Mitras decisively proves that both of them belonged to the same period. I, therefore, conclude that the Sūryamitra and Brahmamitra of the present series are identical with the kings bearing the same name in the Kanauj (?) series. And almost midway between Kanauj and Rairh is Mathurā, where we get the coins of both these rulers. Be it noted that the Rairh coins of Brahmamitra have little similarity with the Rairh coins of Sūryamitra, but are almost definitely identical in type with the Mathurā series of Sūryamitra and Brahma-mitra. Brahmamitra's coins of Rairh have on the obverse 'Lakshmī' (?) standing facing' and the Ujjain symbol, both of which are found on the

coins of Sūryamitra and Brahmamitra of the Mathurā series. The legends of both the Mathurā and Rairh varieties are not only nearly identical but palaeographically of the same period.

Some other facts also are significant. In Mathurā series, the coins of Sūryamitra and Brahmamitra have a type identical with that of the coins of Gomitra (II of Allan), Drdhamitra and Vishnumitra, inasmuch as all of them have a symbol (the Ujjain symbol) which is replaced by a (second century) Brāhmī Śa-like symbol on the coins of certain kings of that locality, who imitate the coin-type of their predecessors with this variation. This means that the Mathurā series of Sūryamitra's and Brahmamitra's coins is more akin to the Rairh coins of Brahmamitra than to the coins of their successors.

Secondly, is it not significant that none of the kings Sūryamitra, Brahmamitra or Dhruvamitra of any series bear the title Rajan which we find introduced not much later on the coins by many of their successors? This means that not only are they to be regarded as comparatively early members of the 'Mitra' dynasty, but that there is reason for assuming the plurality of Sūryamitra, etc. The other alternative that we have to assume to dispense with the theory of identity of these kings, bearing the same names, is that there were four Sūryamitras, three Brahmamitras and two Dhruvamitras, if not many more still to come to light, all of them within a very short period of about the second century B.C., as palaeography would assign them to. I confess my inability to confront that view, and I regard them all not only as belonging to the same Mitra dynasty (whose kingdom thus included at least Rairh, Mathurā, Kanauj and Pāñchāla) but also almost probably identical with the kings of the famous Śunga dynasty. That dynasty, however, I shall deal with, in a separate article.

To return to the coins, Sūryamitra coins in this collection (Pl. XXVI, 9 & 10) are of two varieties, the first of which is evidently identical with the one figured under Uddehka in Allan's Catalogue, p. 240. The present coin confirms Prof. Rapson's view<sup>1</sup> that the counter-mark on the reverse of this coin is a variety of the 'triangular standard' (correctly speaking, a 'life-symbol'). The first variety of Sūryamitra's coins bears the legends *Udehaki* and *Suyamitasa*; the second '*Sudavapa*' and *Suyamitasa* (see Appendix B, Inscribed Coins Nos. 19 to 23). I do not entertain much doubt that Sudavapa, like Udehaki, is a place-name. If it had been a title or a dynastic name, it would have occurred also on other series of the same king or dynasty, but it occurs on no coins found in Pāñchāla, at Mathurā or at Kanauj. It, however, occurs on other coins (*i.e.*, of Dhruvamitra) found at Rairh itself, though his Pāñchāla series does not possess it. I here draw attention to the use of place-

<sup>1</sup> Allan, cixli.

names on coins of this period. With tribal names they are often associated, e.g., in *Madhyamikāyām Śibijanapadasya*, *Yaudheyānam Bahudhānyake* (in Sanskrit transcription), etc. We know the coins bearing the legend 'Agodakā(ja)napadasa', or Agodakā-agacha-jana (-padasa),<sup>1</sup> specimens of which were recently found in Agroha, whence Agravala Brāhmaṇas derive their name. The ancient Sanskrit name of it in earlier times has been not yet identified. I am sure that in later times it is Agrotaka,<sup>2</sup> a name which is found in an ancient inscription, that mentions a Brāhmaṇa of Garga gotra as belonging to that Anvya.

But the names of towns etc., occur even by themselves; thus we have coins bearing the simple legend "Ujeni."<sup>3</sup> From the certain we proceed to the uncertain, and I should not doubt much that *Hirañasame* (=Hiranyāśrame)<sup>4</sup> really represents a place-name, though it is as yet unidentified. Need I also refer to the famous 'Negamā' coins of *Dojaka*, *Rālimasa*, *Atakataka*?<sup>5</sup>

But is there any evidence that a place-name was connected with king's name on any coin, except, of course, the *Uddehikā* coins? I think there is: for the *Mathurā* coins of *Gomitra*<sup>6</sup> I contain the inscription '(1) *Gomitasa*' (2) *rāṇayā* (or *ye*), i.e., '(The coin of) *Gomitra*; in (the town of) *Rāṇā*.' I believe, it is impossible to satisfactorily explain the legend otherwise. And *Gomitra*, as shown above, probably belonged to the same dynasty to which *Rairh*-kings belonged; and I suppose that this also supplies a clue to the chronology of these princes; for this system of associating the place-name with the name of the king seems at present to be connected with some (early) kings of the *Mitra* dynasty only.

The next series of coins we have to deal with is the coins bearing a mountain and an Ujjain symbol on the obverse together with what it is tempting to read as *Va-pu* (Pl. XXVI, 15, 16). The reading is, however, not without any objections, since, if that be the reading, the inscription belongs to Asokan period or a little later (3rd, or the first half of 2nd century B.C.), when the second letter *pu* could not have the horizontal stroke above (that makes a *po* out of a *pa* of that period). What could this symbol—a combination of *pu* and *po*—be?

Then we come to the minute *Mālava* coins, a number of which were found by *Carleyle* at *Karkoṭa Nagar*, not far from *Rairh*. The rest

<sup>1</sup> Ibid., 279; 282 (F).

<sup>2</sup> JASB., 1883, Pl. I, p. 73:—"Agrotakanvaye Gargagotre," etc. The inscription belongs to A.D. 1424. See, however, the Bulletin of the School of Oriental Studies, London, 1940, Dr. Barnett's article, which I came across rather too late.

<sup>3</sup> Ollan, cxlv; 262.

<sup>4</sup> Ibid. cxxxii and xxxxii; 218.

<sup>5</sup> Bhandarkar's Carnecheel lectures, 1921, p. 6, Allan, p. 214 (F), etc.

<sup>6</sup> Ibid. cix; 169. I have always referred to the corrected forms of the inscriptions (as given in the introduction to Allan's Catalogue) in this and the last three instances, excepting of course, in the case of the *Yaudheya* coins of the region.

of the coins do not call for much more comment than is given in the text. We can here briefly get a glimpse of the dynasties etc., through whose hands this territory passed.

Of the seals, the most important is the one of lead (Pl. XXVI, 22) bearing the inscription Mālava-janapada(sa?). The Mālavas are up till now known, from inscriptions as well as from coins, as Gana and not as a *Janapada*. I should, however, reserve my comments on this expression for my article on the Mālavas which I shall shortly publish.

The next three are personal seals, though the fact that they would give an inverted impression on a lump of clay would perhaps lead us to take them for sealings. But the fact is that they are deeply incised. On the next four seals as well as on the last one we have only some symbols, the most popular of which, the svastika and the taurine, are so frequently found on other antiquities found at Rairh.

Of the remaining three (which are all sealings), one bears the letters *Mada*, which is perhaps the name of one of the numerous petty chiefs who might have governed the *Mālavagana*. This name reminds us of the legends on Malava coins Maya, Yama, Mapaya, Bhapaniyama and what not. The rest of the sealings bear an inscription which I have discussed in the text, to which I draw attention. For tabulation of seals see Appendix C.

*Note (I).*—For the weights of these coins, as well as for a few suggestions I am indebted to the Director-General of Archæology in India and his staff.

(2) I am proving elsewhere that the Mālava symbols e.g., the Svastika, the Brahmi *ma* (inverted), the life-symbol etc., are connected with the worship of the Mother-goddess—S. K. Dikshit.

For tabulation of coins see Appendix "B."

Of peculiar interest are a few stone slabs pierced with holes bearing incised decoration. Their purpose is not quite intelligible. Five of these bear T-shaped marks cut deep into the stone and I believe two such slabs fixed together served as a convenient mould. These are fairly thick and are pierced with two holes, one on either side of the stem. The remaining slabs made of slate stone are thin rectangular pieces pierced with several holes and bear incised decorations done with a sharp pointed instrument. One of these (Pl. XXVI, 25) with graffito drawing of a tree in railing and a human figure with a peculiar head-dress standing to the left in reverential attitude, bears a short incised inscription to the left. It reads *sitapasaka*<sup>1</sup> in early Brahmi characters which may go up to 200 B.C. The latter part of the legend clearly refers to

<sup>1</sup> Deciphered by Rao Bahadur K. N. Dikshit, Director-General of Archæology in India.

an *upasaka* or devotee. The first two letters are not easy to interpret unless the word *sita* stands for *sidha* or *siddha* which could then be interpreted as *sidha* as an *upasaka*. On the reverse there is a row of eight notches with tree in railing, all at the edge of a horizontal incision which, with a channel in the middle at right angles, makes a T-shaped deep incision. The seven holes perforated through the stone indicate that some kind of arrangement existed for stringing this slab on to another piece, perhaps a casket.

There is another slab similar in its arrangement but without any writing. The symbols and the row of figures on the reverse represent a person running to the left holding some obscure object in the arm and a symbol in front. On the obverse are variations of the well-known taurine symbol with a triangular extension just inside the same circle and two branches at the upper ends. There is a scratched rudimentary human figure across this symbol, a comb-shaped symbol at the top and a composite symbol at the left bottom. The comb-shaped symbol and the composite symbols are unknown from other sources. On the whole it is difficult to trace the exact significance of these tablets.

## CONCLUSIONS

What the ancient name of the site was is not possible to say but the discoveries have amply confirmed that Rairh was a flourishing industrial centre. The epigraphic and numismatic evidence made available by the excavations lead to the conclusion that the town must have been founded in about the 3rd century B.C. and continued to flourish till about the end of the 2nd century A.D., although traces of partial occupation of the site as late as the early Gupta times have also been brought to light. During the centuries that lapsed the site was deserted and re-occupied on three occasions but the artifacts discovered in all the three strata are the handiwork of the same artisans thus proving the repopulation of the site by the same people. What the cause of these temporary desertions was cannot be recorded precisely but the end of the 2nd or middle period may be fixed about the time of the disruption of the Mauryan Empire (Circa 180 B.C.) and that of the 3rd or late period about the close of the 2nd century A.D. to which time the numerous copper coins of the Malavas found on the surface are to be assigned. The Malava coins and the lead seal of the Mālava public together with the discovery of five hoards of punch-marked silver coins show conclusively that Rairh besides Nagar or Karkota Nagar in the Uniara Thikana, Jaipur State, was another important settlement of the Mālava tribe under the suzerainty of the Maurya and Śūṅga Kings probably enjoying during the interval a short span of independence during which time the Senapati coins of the Commander-in-Chief Vachhāghosa were issued. The discovery of coins of the Mitra kings *viz.*, Śūryamitra, Brahmagupta and Dhruvamitra,—kings contemporary or identical with the kings of the Śūṅga dynasty—show that their kingdom included Rairh besides Mathurā, Kanauj and Pāñchāla where their coins have been found.

The majority of the houses were mud build with sloping tiled roofs of which no traces have survived. Burnt bricks of exceptionally large size were employed for construction purposes but their use was confined to the construction of platforms (?), the foundations of which were composed of series of parallel walls and rarely for the construction of small dwellings. Soak-wells composed of pottery rings fitted one above the other are a peculiar feature of the site. The chief industry of the town was the metallurgy of iron and the manufacture of tools and implements of the same metal but metals such as, copper, lead, silver and gold were also made use of. In addition, the artisans of Rairh specialized in the manufacture of polished coloured stone beads decorated with etched patterns, conch, ivory bronze and steatite objects.

As regards the religion of the people there is little doubt that the deity to whom greatest reverence was paid was the Nature or Mother-goddess. Shaktism of the highest order was the belief of the day although the cult of Śiva and Pārvati was not unknown. Various types of goddesses found probably represented different aspects of the Devi e.g., Durga, Pārvati, Lakshmi, but on account of lack of semblance with any of the known conventional forms it is not possible to identify any type. The male god Śiva seen on a couple of pottery plaques, played a secondary role in the religious scheme. Buddhism had no influence, whatsoever, although traces of contact with the Buddhist world have been established by the discovery of a fragment of a *Chunar* sand-stone bowl, a few pieces of highly polished Buddhist pottery and steatite caskets similar to relic caskets found on Buddhist sites for the enshrinement of body relics.

APPENDIX A.  
TABULATION OF RING WELLS.

Serial Number	Trench and Ring well No.	Depth of Ring well	Number of Rings in each well	Height in ft above bed of river	Contents	Remarks
1.	A- 8	2'6"	5	11.13	Decayed earth mixed with potsherds, etc.	
2.	A-10	...	...	17.85	.....	Not opened. —do—
3.	A-11	...	...	...	.....	D. E. = Decayed Earth.
4.	A-13	8'1"	17	6.75	D. E. & P., 2 figurines of mother-goddess.	P. = Potsherds.
5.	A-14	1'5"	3	13.45	D. E. & P.	
6.	A-19	6'10"	12	7.91	D. E. & P., several complete dishes.	
7.	A-20	4'9"	12	...	D. E. & P., fragments of mother-goddess, drain-pipe and votive tank.	
8.	A-21	6'7 $\frac{1}{2}$ "	14	9.00	D. E. & P. bones and a human male figure.	
9.	A-22	7'4"	16	8.58	D. E. & P.	
10.	A-23	5'9 $\frac{1}{2}$ "	13	11.20	D. E. & P.	
11.	A-24	5'2 $\frac{1}{2}$ "	11	9.39	D. E. & P. and some complete vases with mouths turned upside down.	
12.	A-25	3'5"	7	14.92	D. E. & P.	
13.	B- 2	...	...	...	.....	Not opened. —do—
14.	B- 3	...	...	...	.....	—do—
15.	B- 5	...	...	...	.....	—do—
16.	B- 6	...	...	...	.....	—do—
17.	B- 7	...	...	...	.....	—do—
18.	B- 9	...	...	12.82	.....	Opened from outside. —do—
19.	B-10	...	...	15.67	D. E. & P., and some complete vases with mouths turned upside down.	
20.	B-11	...	...	...	.....	—do—
21.	B-12	3'7"	6	17.35	D. E. & P.	
22.	B-13	...	...	...	.....	Not opened. —do—
23.	B-14	...	...	...	.....	
24.	B-15	2'7 $\frac{1}{2}$ "	8	...	D. E. & P., bones, dishes and complete vases with mouths turned upside down.	
25.	B-16	3'9"	8	...	D. E. & P.	
26.	B-17	4'4"	10	19.27	D. E. & P. and complete vases with mouths turned upside down.	
27.	B-18	5'9 $\frac{1}{2}$ "	12	18.60	D. E. & P., dishes, brick-bats, etc.	
28.	B-21	...	...	...	Two circular copper coins beyond preservation with D. E. & P.	Not opened. —do—
29.	C- 3	...	...	...		
30.	C-11	...	...	...		

## TABULATION OF RING WELLS—(Contd.)

Serial Number	Trench and Ring well No.	Depth of Ring well	Number of Rings in each well	Height in ft. above bed of river	Contents	Remarks
31.	C-15	3'7"	7	17.69	D. E. & P., animal bones and dishes.	
32.	C-16	...	...	...	.....	Not opened.
33.	C-17	1'4½"	3	20.94	D. E. & P.	
34.	C-19A	7'7"	15	14.41	D. E. & P., dishes, etc.	
35.	C-21A	...	...	...	.....	Not opened.
36.	C-21B	...	...	...	.....	—do—
37.	C-22	8'9"	18	14.70	D. E. & P., dishes, etc.	
38.	C-23	5'7"	10	16.60	D. E. & P., a very small gold piece and an elephant figurine.	
39.	C-24	4'2"	8	17.50	D. E. & P.	
40.	C-25	8'0"	8	13.50	D. E. & P.	
41.	C-26	6'3"	16	17.81	D. E. & P., a bone handle.	
42.	D-11	...	...	...	.....	Not opened.
43.	D-12	...	...	...	.....	—do—
44.	D-13	...	...	...	.....	—do—
45.	D-14	...	...	...	.....	—do—
46.	D-15	...	...	...	.....	—do—
47.	D-16	...	...	...	.....	—do—
48.	D-17	...	...	...	.....	—do—
49.	D-18	...	...	...	.....	—do—
50.	D-19	...	...	...	.....	—do—
51.	D-20	...	...	...	.....	—do—
52.	D-21	...	...	...	.....	—do—
53.	D-22	...	...	...	.....	—do—
54.	D-23	...	...	...	.....	—do—
55.	D-24	...	...	...	.....	—do—
56.	D-25	...	...	...	.....	—do—
57.	D-26	...	...	...	.....	—do—
58.	D-27	...	...	...	.....	—do—
59.	D-28	...	...	...	.....	—do—
60.	D-29	...	...	...	.....	—do—
61.	D-30	...	...	...	.....	—do—
62.	D-31	...	...	...	.....	—do—
63.	D-32	...	...	...	.....	—do—
64.	G- 1	...	...	11.11	D. E. & P.	
65.	G- 2	...	...	...	.....	Not opened.
66.	G- 3	...	...	4.85	.....	
67.	G- 4	...	...	...	.....	Not opened.
68.	G- 5	...	...	...	.....	—do—
69.	G- 6	...	...	...	.....	—do—
70.	G- 7	...	...	...	.....	—do—
71.	G- 8	...	...	...	D. E. & P., and one coin beyond preservation.	—do—
72.	G- 9	...	...	...	.....	Not opened.
73.	G-10	...	...	...	.....	—do—
74.	G-11	...	...	...	.....	—do—
75.	G-12	...	...	...	.....	—do—
76.	G-13	...	...	...	.....	—do—
77.	G-14	...	...	...	.....	—do—
78.	G-15	...	...	...	.....	—do—
79.	J/N- 2	6'2"	11	17.60	D. E. & P.	
80.	J/N- 3	1'11"	4	21.97	D. E. & P.	

## TABULATION OF RING WELLS—(Contd.)

Serial Number	Trench and Ring well No.	Depth of Ring well	Number of Rings in each well	Height in ft. above bed of river	Contents	Remarks
81.	J/N-7	9'0"	21	13.41	D. E. & P., dishes and a few grains of corn.	
82.	J/N-11	5'7"	13	17.00	D. E. & P., corn, copper coin beyond preservation, jars and pots.	
83.	J/N-12	6'6 $\frac{1}{2}$ "	10	18.15	D. E. & P., a copper coin.	
84.	J/N-14	4'11 $\frac{1}{2}$ "	10	21.15	D. E. & P., dishes, mother-goddess.	
85.	J/N-15	7'1"	14	18.00	D. E. & P., dishes, vases and pots.	
86.	J/N-16	2'10"	5	22.10	D. E. & P., dishes, vases and pots.	
87.	J/N-20	3'6 $\frac{1}{2}$ "	7	18.55	D. E. & P.	
88.	J/N-22	7'0"	14	13.75	D. E. & P.	
89.	J/N-23	12'4 $\frac{1}{2}$ "	24	9.23	D. E. & P.	
90.	J/N-24	10'0"	22	12.25	D. E. & P.	
91.	J/N-25	...	...	...	.....	Not opened.
92.	J/N-26	...	...	...	.....	—do—
93.	M-3	...	...	...	.....	—do—
94.	M-4	...	...	...	.....	—do—
95.	N-29	5'6"	12	15.39	D. E. & P., flesh rubber, corn, etc.	
96.	N-30	8'4 $\frac{1}{2}$ "	17	15.25	D. E. & P., pottery beads.	
97.	N-31	10'7"	20	12.82	D. E. & P., terracotta.	
98.	N-32	9'4"	17	13.35	—do—	
99.	N-37	6'11 $\frac{1}{2}$ "	13	15.60	D. E. & P., animal bones.	
100.	O-1	7'8 $\frac{1}{2}$ "	16	14.25	D. E. & P., etc., plaque of m o t h e r-goddess, dishes.	
101.	O-2	7'8 $\frac{1}{2}$ "	15	10.09	D. E. & P., ear-pendant, copper coin beyond preservation, iron axe, dishes.	
102.	O-3	12'2"	26	16.45	D. E. & P., copper ring, hollow dish, cylindrical tablet, copper pieces, dishes.	
103.	O-4	8'7"	17	8.80	D. E. & P., a kind of millet, corn and animal bones.	
104.	O-5	3'1 $\frac{1}{2}$ "	7	16.56	D. E. & P., small pots.	
105.	O-6	3'7"	6	15.60	D. E. & P.	
106.	O-6A	0'11"	2	18.18	D. E. & P.	
107.	O-7	3'7"	6	15.60	D. E. & P.	
108.	O-8	10'10 $\frac{1}{2}$ "	18	12.55	D. E. & P., highly corroded copper coin, pots, dishes, mother-goddess, plaque and neck of jar.	
109.	O-9	8'1"	17	9.00	D. E. & P., axle of toy cart with wheel and dishes, etc.	
110.	O-10	8'5"	19	7.79	D. E. & P., dishes.	
111.	O-11	5'10"	12	17.63	D. E. & P., dishes.	

## TABULATION OF RING WELLS—(Contd.)

Serial Number	Trench and Ring well No.	Depth of Ring well	Number of Rings in each well	Height in ft. above bed of river	Contents	Remarks
112.	O-12	8'3"	19	9.22	D. E. & P., pieces of animal bones, ashes, dishes.	
113.	O-13	5'1½"	11	13.45	D. E. & P., dishes, etc., copper coin beyond preservation.	
114.	O-14	4'1½"	8	15.60	D. E. & P., bones, dishes, brick-bats.	
115.	O-15	5'6"	8	17.34	D. E. & P., bones, dishes, brick-bats.	

Punch-marked coins are tabulated and illustrated in Plates XXVII to XXXVI. On account of restricted number of plates, punch-marked coins have been dealt with collectively and it has not been possible to give weight and size of each coin. Restricted space has also precluded the possibility of inserting weight, and sizes of uninscribed and Mālava coins but Senāpatī issues, Vapu coins and coins of the Mitra kings which are of unique interest have been fully dealt with.

APPENDIX B.  
TABULATION OF COINS.

Serial Number	Number of coins.		Obverse.	Reverse.
	Exca- vated	Found on surface		
<b>Uninscribed.</b>				
1	5	3 <sup>1</sup>	Die-struck. Three symbols in separate incuses: (1) Taurine; (2) Wavy river or snake, and (3) ♀	Mostly blank but on few coins Ujjain symbol ap- pears. Pl. XXV, 28.
2	4	4	Die-struck; symbols in incuses, Ujjain symbol, bull <i>r.</i> , deity standing and <i>si2</i>	Fan-tail peacock <i>r.</i> Pl. XXV, 29 & 30.
3	...	4	Die-struck. (1) Ujjain symbol; (2) six-rayed solar symbol; (3) horse <i>r.</i> ; (4) snake with small Ujjain symbol below; and (5) <i>si2</i>	Three blank and one struck on both faces. Pl. XXV, 31.
4	...	2	Die-struck. (1) Ujjain symbol; (2) Sun; (3) Bull, <i>l.</i> on standard; (4) Horse <i>r.</i> ; (5) Mountain with river below.	Indistinct. Pl. XXV, 32.
5	...	6	Die-struck. (1) Ujjain symbol; (2) Sun; (3) Horse <i>l.</i> ; (4) Six-arched mountain; (5) Triangular stand- ard.	Blank. Three corroded and one broken. Pl. XXV, 33.
6	1	16	Die-struck. Elephant <i>l.</i> , above Ujjain sym- bol on <i>r.</i> , and triangular stand- ard on <i>l.</i>	Blank. Average size '47" x '45". Pl. XXV, 34.
7	...	11	Same as above elephant fac- ing <i>r.</i>	Blank. Average size '4" x '37".
8	...	7	Die-struck. Three symbols:— (1) Sun; (2) Ujjain symbol; (3) Triangular standard.	Blank. Average size '36" x '35".
9	...	1	Die-struck. Tree in railing and Ujjain sym- bol on <i>l.</i>	Pellet roughly surrounded by four crescents.
10	...	1	Die-struck. Ujjain symbol with designs in balls, triangular standard and a variety of six-rayed symbol.	Blank. Average size '6" x '6". Pl. XXV, 35.
11	...	4	Die-struck. Same as above but without the triangular standard.	Blank. Average size '56" x '56".
12	...	1	Die-struck. Ujjain symbol and triangular standard in separate incuses.	Badly corroded. Average size '85" x '6".
13	...	1	Die-struck. Ujjain symbol and left-handed indistinct svastika.	Blank. Average size '8" x '6".
14	...	4	Die-struck. Tree in railing and traces of Ujjain symbol.	Blank. Average size '5" x '48". Well preserved thick square pieces.

## TABULATION OF COINS—(Contd.)

Serial Number	Exca- vated	Number of coins:	Found on surface	Obverse.	Reverse.
15	2	1	Die-struck. Ujjain and Taxilan symbols.		Blank.
16	...	1	Die-struck. Ujjain and solar symbols.		Blank.
17	1	8	Die-struck. Ujjain symbol with designs in balls.		Blank. Average size .38" x .38".
18	..	1	Die-struck. Ujjain symbol with designs in balls.		Taxilan symbol.
19	...	2	Die-struck. Six-rayed symbol.		Blank.
20	...	2	Die-struck. Ujjain symbol with plain circles.		Corroded. Round thick coins.
21	...	2	Die-struck. Ujjain symbol with plain circles.		Indistinct triangular standard and another indistinct symbol.
22	...	3	Die-struck. Ujjain symbol with plain circles.		Corroded.
23	...	2	Die-struck. Crudely drawn bull facing r. in an oval incuse.		Corroded. Pl. XXV, 36.
24	...	2	Die-struck. Horse facing r. in a circular incuse.		Traces of solar symbol.
25	...	1	Die-struck. Frog(?)		Blank. Pl. XXV, 37.
26	1	3	Die-struck. Six-petalled lotus?		Corroded, circular.
27	...	1	Die-struck. Six-petalled lotus?		Ujjain symbol and traces of tree. Circular. Average size .5" x .1".
28	...	4	Die-struck. Circle inset with six-petalled floral design surrounded by four semi-circles bearing respectively palm leaf design, taurine symbols, snake(?) and an indistinct pattern.		Ujjain symbol. Pl. XXV, 38.
29	2	9	Die-struck. (1) Sun; (2) Variety of taxilan symbols; (3) Human figure with staff?; (4) Tree, and (5) (?)		Caduceus and Ujjain symbol. Round thick coins. Punch-marked type copper coins. Pl. XXV, 39.
30	3	18	Cast. Elephant l., in front triangular standard and above Svastika and taurine, below ladder.		Mountain, tree in railing, Nandipada and Greek-cross. B. M. Catalogue, p. 88; var. j. Pl. XXV, 40 & 41.
31	1	5	Cast. Elephant l., in front taurine, below svastika on l. and triangular standard on r.		Same as above. B. M. Catalogue, p. 89; var. k. Pl. XXV, 42.
32	...	1	Cast. Bull r., facing tree in railing.		Elephant r. Pl. XXV, 43.

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
Inscribed Malava Coins.					
1.	...	Æ Round. Average size 0'6"	Tree in railing with <i>ja l.</i> and <i>ya r.</i> Below: Mālavānam.	Three symbols: Snake or wavy river; Nandipada and triangular standard.	42 coins picked on surface and two excavated. Pl. XXVI, 1.
2.	...	Æ Average size 0'47"	Legend in two lines, (1) <i>ja ya</i> L. and solar symbol r. (2) Mālavānam. Below: snake or wavy river.	Tree in railing and six-arched mountain.	16 coins picked on surface and 3 excavated. Pl. XXVI, 2.
3.	...	Æ Average size 0'52"	Above, tree in railing l. and solar symbol. Middle, Mālavānam. Below: snake or wavy river.	<i>Ja-ya</i> on 30 coins, other plain, obscure or corroded.	71 coins picked on surface and 4 excavated. Pl. XXVI, 3.
4.	...	Æ Rectangular.	Above, solar symbol. Middle, Mālavānam. Below: snake or wavy river.	<i>Ja-ya</i> .	11 coins picked on surface. Struck with a circular die.
5.	43.84	Æ Circular. Size 0'6"	2 Solar symbols, one a radiate sun. Below: Mālavānam.	Traces of snake or wavy river.	A well preserved coin picked on surface. Pl. XXVI, 4.
6.	6.53	Æ Circular. Size 0'35" × 0'3"	...Na <i>ja-ya</i> . A trident above the legend.	A parasu (combined with a trident?).	Surface.
7.	2.41	Æ Circular. Size 0'3"	Tree in railing.	An obscure device, perhaps an animal.	Surface. Corroded.
8.	12.05	Æ Circular. Size 0'36"	Standing male figure l. and an uncertain device.	Blank.	
9.	7.56	Æ Circular. Size 0'5"	(?) <i>ta-tl-a-sa...?</i>	Tree in railing, Legend lost.	Surface. Corroded fragment. Probably Mālava coin of the type having queer names.
10.	8.47	Æ Circular. Size 0'4"	Humped bull facing r, in a border of dots.	<i>M[ā]-lāva-...jaya</i> . Tree without railing.	Surface. Well preserved. Pl. XXVI, 5.

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
11.	8·02	Æ Circular. Size 0·5"	Na-jaya. Below, tree in railing.	Traces of Ujjain symbol.	Surface.
12.	...	Æ .....	Indistinct Mālava coins.	.....	142 picked on surface and six excavated.
Senapati Coins.					
13.	87·07	Æ Rectangular. Size 1·08" x 0·9"	Top Ujjain symbol. L.1, <i>Senāpatisa</i> . L.2, <i>Vachhaghosa</i> . All in incuse.	Bull facing l., standing on a standard within a complex enclosure and taurine. Corroded.	R.1597. Pl. XXVI, 6.
14.	99·88	Æ do.	Top, Ujjain symbol, and key-like symbol. L.1, <i>Senāpa[ti]sa</i> . L.2, <i>[Va]chha-ghosa</i> .	do. and an akshara <i>sa</i> on r.	Well preserved surface coin. Pl. XXVI, 7.
15.	69·99	Æ Round. Size 1·05"	Top Ujjain symbol, l.; taurine r. L.1, <i>Senā[pa]tisa</i> . L.2, <i>[Va]chha-ghosa</i> . All in square incuse.	Traces of humped bull facing r. on standard in railing.	Surface coin. Pl. XXVI, 8.
16.	81·99	Æ Square. Size 1·02" x 0·95"	L.1, <i>[se]napa...</i> L.2... <i>chhaghosa</i> .	Corroded.	No. R.1058.
17.	50·49	Æ	Top, Ujjain symbol. L.1... <i>[se]na...</i> L.2... <i>[gho]sa</i> .	Traces of railing.	No. R.1265.
18.	32·40	Æ Size 0·75" x 0·65"	L.1, <i>[se]</i> , the rest cut out. L.2, <i>Vachhaghosa</i> .	Blank.	Well preserved. No. R.2403.
Suryamitra Coins.					
19.	44·13	Æ Square.	L.1, <i>[U]-d[e]-ha-k[i]</i> . L.2, <i>Su-ya-m[i]-ta-[sa]</i> . Tree in railing; tank with three fishes; Ujjain symbol.	Elephant to l.; humped bull to r.; The 'life-symbol' in deep incuse, with opening to r. (probably a counter-mark).	No. R.2587, 5A. Pl. XXVI, 9.
20.	45·06	Æ Square.	L.1, <i>S[u]-da-vā-pa</i> . L.2, <i>S[u]-ya-mi-ta-sa</i> . Humped bull to l.; life-symbol;	A solar symbol; a six-arched mountain; a river with three fishes; a tri-	Well preserved. The legends marginal and at right angles.

Tabulation of Coins—(Contd.)

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
21.	43·20	Æ Square.	Ujjain symbol; a five-forked symbol (like a combination of two trisulas): 	dent or a three-forked trisula-like symbol: 	No. 5Br, surface. Pl. XXVI, 10.
22.	36·41	Æ Square.	L.1, <i>Su-da-vā-pa.</i> L.2, <i>Su-ya-m[i]-ta-sa:</i> Humped bull to l.; 'life-symbol'; Ujjain symbol; five-forked symbol.	A solar symbol; a six-arched mountain; a river with three fishes; the three-forked symbol or trident.	Well preserved. Surface No. 5B2.
23.	35·49	Æ Square.	Legend obliterated, except L.2,...[ta]-sa. Humped bull to l.; Ujjain symbol.	The trident or three-forked symbol; traces of the river.	Worn out. Surface. No. 5B3.
24.	86·26	Æ Round.	L.1,...[va]- <i>pā.</i> L.2, <i>Su-ya.....</i>	River with fish; (probably countermarked with) Ujjain symbol (with the balls containing some small symbols) and a six-armed solar symbol (with 3 alternating taurines and 3 arrows), both of which are in deep incuse.	(Worn out; but the last two symbols are very clear). Surface No. 5B4.
<b>Brahmamitra Coins.</b>					
25.	28·38	Æ Square.	L.1, [ <i>Bra-</i> ] <i>hma-mi-ta-sa</i> (marginal) Lakshmi(?) standing facing; Ujjain symbol (all in incuse).	Illegible.	(Worn out). Surface; No. 3. Pl. XXVI, 11.
<b>Dhruvamitra Coins.</b>					
26.	24·64	Æ Square.	L.1, <i>Dh[ru]-va-mi-ta-[sa].</i> River with fish; Ujjain symbol; Caduceus; faint traces of the Ujjain symbol.	<i>Ma-s[o].</i> A square tank with fishes? Triangular standard or life-symbol and taurine(?)	Fair preservation. Surface; No. 7A1. Pl. XXVI, 12.
			Legend obliterated. River with fish, [counter-struck with a horse (or	[ <i>Ma</i> ]-so A square tank with a Lingam.	A little worn out. Surface; No. 7A2.

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
27.	28.72	$\text{Æ}$ Square.	perhaps a lion), in incuse]; Ujjain symbol; Caduceus; Ujjain symbol.	River with fish; Mountain symbol.	Slightly damaged; a little worn out. Surface; No. 7Br. Pl. XXVI, 13.
28.	26.54	$\text{Æ}$ Square.	L.1,...[va-pa]. L.2,...[m]i-ta-sa. Elephant to r.; above Svastika and Ujjain sym- bol.	Traces of the river with fish and mountain symbol.	Worn out. Sur- face; No. 7B2.
29.	20.18	$\text{Æ}$ Square.	L.1, [su]-da-[va]- pa. L.2, Dh[rui]-va- m[i]-tasa. Elephant to r.; Svastika; Ujjain- symbol. (All prob- ably in incuse).	Symbols obliterated, except some faint traces of the river with fish.	Worn out. Sur- face; No. 7B3.
30.	32.03	$\text{Æ}$ Square	L.1, Su-da-[va-pa]. L.2, ..... Elephant to r.; Ujjain symbol.	River with two fishes and tor- toise(?) in their middle; moun- tain; and some uncertain symbol.	A little worn out. Surface; No. 7C1.
31.	24.65	$\text{Æ}$ Square.	L.1, [su]-da-va-pa- L.2,...va-mi-ta-[sa]. Elephant to r.; Ujjain symbol.	River with tor- toise(?) in the middle of two fishes; triangular standard or the life-symbol with a 'lip' towards the left $\mp$ some other indistinct symbols.	A little worn out. Surface; No. 7C2. Pl. XXVI, 14.
32.	20.70	$\text{Æ}$ Square.	L.1,...[da]..... L.2, ...va-mi-ta... Elephant to r.; Ujjain symbol.	River with tor- toise in the middle of two fishes; other symbols obliterated.	Worn out. Sur- face; No. 7C3.
33.	5.92	$\text{Æ}$ Square.	L.1, [Va]-pu(?) Ujjain-symbol; mountain.	Blank.	Slightly cut at two or three places along the edge. Surface; No. 6A1.

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
34.	4·93	Æ Square.	L.r, [Va-pu(?)] Ujjain symbol; mountain.	Blank.	Fairly well preserved. Pl. XXVI, 15. Surface. No. 6A2.
35.	4·14	Æ Square.	L.r, [Va-pu(?)] Ujjain-symbol; part of the mountain symbol.	Blank.	A little worn out. Surface; No. 6A3.
36.	4·04	Æ Square.	L.r, [Va]-p[u](?) Ujjain symbol.	Blank.	Worn out. Ends bent towards the obverse side, so that the reverse has convex surface. Surface; No. 6A4.
37.	56·68	Æ Square.	L.r, Va-pu (?) (in incuse). Traces of Ujjain symbol.	Traces of the solar symbol.	Thick; a little cut along one side of the edge. Worn out. Surface; No. 6B1. Pl. XXVI, 16.
38.	51·07	Æ Square.	L.r, Va-pu (?) Ujjain symbol. (Both separately in incuse).	Solar symbol; six-arched mountain.	Thick; edges cut. A little worn out. Surface; No. 6B2.
39.	34·72	Æ Square.	I.r, [Va]-p[u](?) Ujjain symbol. (Both in separate incuses).	Solar symbol; six-arched mountain; 'life - s y m b o l'; horse to l.; Ujjain symbol and triangular standard. (All separately in incuse).	Edges damaged. Surface; No. 6B3.
<b>Miscellaneous Coins.</b>					
40.	48·76	Round.	L.r, ΕΩΣΣ (Greek inscription) Apollo standing to l.	(Kharosti inscription) tra-ta. (marginal).	A fragmentary coin, the attribution of which is uncertain, this particular variety of tripod being probably represented on the coins of the Apollodotus, Dionysios, Zoiros, etc. A plausible attribution, however,

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.	
27.	28.72	$\text{Æ}$ Square.	perhaps a lion), in incuse]; Ujjain symbol; Caduceus; Ujjain symbol.	L.1,...da-va-pa. L.2,...[m]i-ta-su. Elephant to r.; above Svastika and Ujjain sym- bol.	River with fish; Mountain symbol.	Slightly damag- ed; a little worn out. Surface; No. 7B <sub>1</sub> . Pl. XXVI, 13.
28.	26.54	$\text{Æ}$ Square.	L.1,...[va-pa]. L.2, Dh[rn]-va- m[i]-tasa. Elephant to r.; Svastika; Ujjain- symbol. (All prob- ably in incuse).	Traces of the river with fish and mountain symbol.	Worn out. Sur- face; No. 7B <sub>2</sub> .	
29.	20.18	$\text{Æ}$ Square.	L.1, [su]-da-[ra]- pa. L.2, Dh[rn]..... Elephant to r.; Svastika; Ujjain symbol. (All prob- ably in incuse).	Symbols obliterated, except some faint traces of the river with fish.	Worn out. Sur- face; No. 7B <sub>3</sub> .	
30.	32.03	$\text{Æ}$ Square	L.1, Su-da-[va-pa]. L.2, ..... Elephant to r.; Ujjain symbol.	River with two fishes and tor- toise(?) in their middle; moun- tain; and some uncertain symbol.	A little worn out. Surface; No. 7C <sub>1</sub> .	
31.	24.65	$\text{Æ}$ Square.	L.1, [su]-da-va-pa- L.2,...va-mi-ta-[sa]. Elephant to r.; Ujjain symbol.	River with tor- toise(?) in the middle of two fishes; triangular standard or the life-symbol with a 'lip' towards the left $\mp$ some other indistinct symbols.	A little worn out. Surface; No. 7C <sub>2</sub> . Pl. XXVI, 14.	
32.	20.70	$\text{Æ}$ Square.	L.1,...[da]..... L.2, ..va-mi-ta... Elephant to r.; Ujjain symbol.	River with tor- toise in the middle of two fishes; other symbols obliterated.	Worn out. Sur- face; No. 7C <sub>3</sub> .	
33.	5.92	$\text{Æ}$ Square.	L.1, [Va]-pu(?) Ujjain-symbol; mountain.	Blank.	Slightly cut at two or three places along the edge. Surface; No. 6A <sub>1</sub> .	

## Yapu(?) Coins.

*Tabulation of Coins—(Contd.)*

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
34.	4·93	Æ Square.	L.I, [Va-pu(?)] Ujjain symbol; mountain.	Blank.	Fairly well preserved. Pl. XXVI, 15. Surface. No. 6A2.
35.	4·14	Æ Square.	L.I, [Va-pu(?)] Ujjain-symbol; part of the mountain symbol.	Blank.	A little worn out. Surface; No. 6A3.
36.	4·04	Æ Square.	L.I, [Va]-p[u](?) Ujjain symbol.	Blank.	Worn out. Ends bent towards the obverse side, so that the reverse has convex surface. Surface; No. 6A4.
37.	56·68	Æ Square.	L.I, Va-pu(?) (in incuse). Traces of Ujjain symbol.	Traces of the solar symbol.	Thick; a little cut along one side of the edge. Worn out. Surface; No. 6B1. Pl. XXVI, 16.
38.	51·07	Æ Square.	L.I, Va-pu(?) Ujjain symbol. (Both separately in incuse).	Solar symbol; six-arched mountain.	Thick; edges cut. A little worn out. Surface; No. 6B2.
39.	34·72	Æ Square.	I.I, [Va]-p[u](?) Ujjain symbol. (Both in separate incuses).	Solar symbol; six-arched mountain; 'life - s y m b o l'; horse to l.; Ujjain symbol and triangular standard. (All separately in incuse).	Edges damaged. Surface; No. 6B3.

*Miscellaneous Coins.*

40.	48·76	Round.	L.I, ΕΩΣΣ (Greek inscription) Apollo standing to l.	(Kharosti inscription) tra-ta. (marginal).	A fragmentary coin, the attribution of which is uncertain, this particular variety of tripod being probably represented on the coins of the Apollodotus, Dionysios, Zoi-llos, etc. A plausible attribution, however,
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Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
27.	28.72	Æ Square.	perhaps a lion), in incuse]; Ujjain symbol; Caduceus; Ujjain symbol. L.1,...da-va-pa. L.2,...[m]i-ta-sa. Elephant to r.; above Svastika and Ujjain symbol.	River with fish; Mountain symbol.	Slightly damaged; a little worn out. Surface; No. 7Br, Pl. XXVI, 13.
28.	26.54	Æ Square.	L.1,...[va-pa]. L.2, Dh[ru]-va-m[i]-tasa. Elephant to r.; Svastika; Ujjain symbol. (All probably in incuse).	Traces of the river with fish and mountain symbol.	Worn out. Surface; No. 7B2.
29.	20.18	Æ Square.	L.1, [su]-da-[va]-pa. L.2, Dh[ru]..... Elephant to r.; Svastika; Ujjain symbol. (All probably in incuse).	Symbols obliterated, except some faint traces of the river with fish.	Worn out. Surface; No. 7B3.
30.	32.03	Æ Square	L.1, Su-da-[va-pa]. L.2, ..... Elephant to r.; Ujjain symbol.	River with two fishes and tortoise(?) in their middle; mountain; and some uncertain symbol.	A little worn out Surface; No. 7Cr.
31.	24.65	Æ Square.	L.1, [su]-da-va-pa. L.2,...va-mi-ta-[sa]. Elephant to r.; Ujjain symbol.	River with tortoise(?) in the middle of two fishes; triangular standard or the life-symbol with a 'lip' towards the left ☩ some other indistinct symbols.	A little worn out. Surface; No. 7C2. Pl. XXVI, 14.
32.	20.70	Æ Square.	L.1,...[da]..... L.2, ...va-mi-ta... Elephant to r.; Ujjain symbol.	River with tortoise in the middle of two fishes; other symbols obliterated.	Worn out. Surface; No. 7C3.
Yapu(?) Coins.					
33.	5.92	Æ Square.	L.1, [Va]-pu(?) Ujjain-symbol; mountain.	Blank.	Slightly cut at two or three places along the edge. Surface; No. 6Ar.

*Tabulation of Coins—(Contd.)*

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse.	Remarks.
34.	4·93	Æ Square.	L.I, [Va-pu(?)] Ujjain symbol; mountain.	Blank.	Fairly well preserved. Pl. XXVI, 15. Surface. No. 6A2.
35.	4·14	Æ Square.	L.I, [Va-pu(?)] Ujjain-symbol; part of the mountain symbol.	Blank.	A little worn out. Surface; No. 6A3.
36.	4·04	Æ Square.	L.I, [Va]-p[u](?) Ujjain symbol.	Blank.	Worn out. Ends bent towards the obverse side, so that the reverse has convex surface. Surface; No. 6A4.
37.	56·68	Æ Square.	L.I, Va-pu (?) (in incuse). Traces of Ujjain symbol.	Traces of the solar symbol.	Thick; a little cut along one side of the edge. Worn out. Surface; No. 6B1. Pl. XXVI, 16.
38.	51·07	Æ Square.	L.I, Va-pu (?) Ujjain symbol. (Both separately in incuse).	Solar symbol; six-arched mountain.	Thick; edges cut. A little worn out. Surface; No. 6B2.
39.	34·72	Æ Square.	I.I, [Va]-p[u](?) Ujjain symbol. (Both in separate incuses).	Solar symbol; six-arched mountain; 'life - s y m b o l'; horse to l.; Ujjain symbol and triangular standard. (All separately in incuse).	Edges damaged. Surface; No. 6B3.
<b>Miscellaneous Coins.</b>					
40.	48·76	Round.	L.I, ΕΩΣΣ (Greek inscription) Apollo standing to l.	(Kharosti inscription) tra-ta. (marginal).	A fragmentary coin, the attribution of which is uncertain, this particular variety of tripod being probably represented on the coins of the Apollodotus, Dionysios, Zoiros, etc. A plausible attribution, however,

*Tabulation of Coins—(Contd.)*

Serial No.	Weight in grains.	Metal & size.	Obverse.	Reverse	Remarks.
41.	39.97	$\text{Æ}$ Roughly triangular surface.	King standing to l., (at an altar?)	Symbols indistinct, (the coin belongs to the mediaeval Hindu period, shows probably remote Sassanian influence; may belong to the series of Gadhaiyā coins, <i>vide</i> Smith's Indian Museum Catalogue, p. 240. Silver-plated cop- per.	would be to Apollodotus, since his domi- nions extended far and wide and his coins were circulated as far south as Barygaza ac- cording to the Periplus. Sur- face: No. 2. Pl. XXVI, 17.
42.	46.46	$\text{Æ}$ Round. Dm. 0'63"	السلطان الـ عظيم علاء الدين نيـا والـين	In double circle. محمد شاه	Surface. <i>Vide</i> Pl. IV, B.354 Wright's coinage of the Sultans of Delhi. Pl. XXVI, 18.

'Alāu-d-din Muha-  
mmad II. Khaljī  
Sultan (1296-1316  
A.D.).

APPENDIX C.

*Tabulation of Seals.*

Serial and Ref. No.	Symbols, legend, etc.	Description.	Remarks.
1. (R.1544)	L.1, [Mā]la-va-ja- L.2, na-pa-da-	Lead seal, with a perforated knob, cut or damaged at one side across the perforated part to the central hole.	Was probably in the possession of an official seal-bearer of the Mālava principality. The legend can be palaeographically dated approximately in the 2nd century B.C. Probably used as a stamp of authority. Pl. XXVI, 22.
2. (R.3022)	L.1, Va-su-bhū-ti L.2, sa.	The letters are incised on an oval terracotta sealing, the handle of which, is lost; colour, dusty.	The legend palaeographically belongs approximately to the date of the Nānāghāt inscriptions, i.e., circa 150 B.C. (vide Bühler's chart; also Mem. A. S. B., XI, iii, p. 131f. Pl. XXVI, 21.
3. (R. 716)	L.1, Sa-ra-va-da- L.2, ta-sa. A Sva(stika(?))	A square terracotta incised sealing; colour, reddish. A perforated knob. Well preserved.	Palaeographically, it belongs approximately to the 2nd century B.C. Can be sanskritized, as Sarvadatta, Saravadatta, Sarabhadatta, etc. (cf. Al. Beruni's India, 1914, I, 203, has "Sharava (Skt. Sarabha)." Pl. XXVI, 20.
4. (R.2097)	L.1, Va-chhū-sa-tī-ya Go-pā[li?] (marginal legend). L.2, ya- (in the centre).	A circular, terracotta incised seal (or sealing?) with the knob broken off.	The legend is not very certain, though probable. Palaeography of the 2nd century B.C. Pl. XXVI, 24.
5. (R. 838)	Crude forms of a taurine and a Svastika.	Terracotta, circular seal (or sealing?) with the symbols incised. Perforated knob. Dusty reddish.	Most popular symbols with ancient people of Rairh.
6. (R.3942)	Crude forms of a Svastika and a taurine symbol; an elongated cross; a Brāhma-na-like figure (or the Tan-cross).	Conical seal; perforated; dusty reddish.	The Tan-cross or (Aśokan) Brāhma-na-like design occurs also at Knossos (Crete) in connection with the serpent goddess or the Mother Goddess (vide Evans, <i>Palace of Minos at Knossos</i> , pp. 496, 561, 619; etc.). Pl. XXVI, 23.

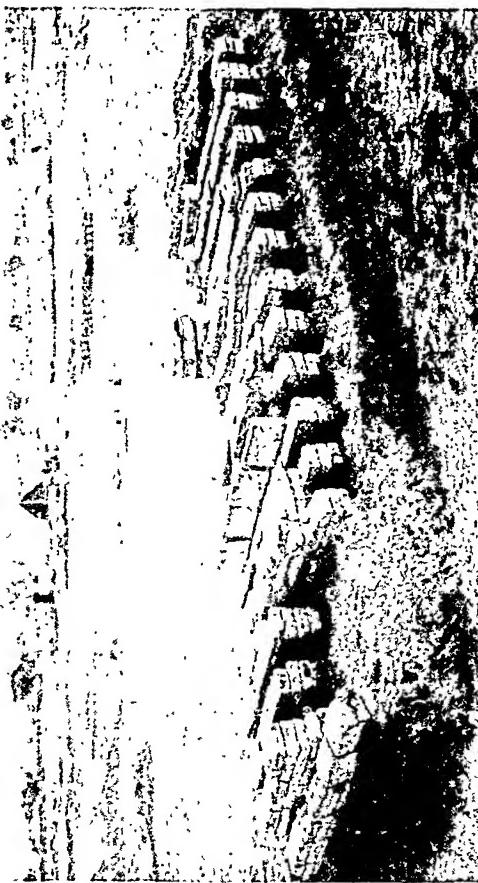
Serial and Ref. No.	Symbols, legend, etc.	Description.	Remarks.
7. (R.)	A taurine on the top of the knob; a taurine and two svastikas (one very crude).	Perforated knob; dusty reddish; shape damaru-like, but with the knob-side smaller.	
8. (R.3096)	<i>Mada.</i>	A seal-impression, in relief, on a small half cut ball. The impression is on the flat surface.	Palaeographically it may belong to any of the last three centuries before the Christian era, or even a little later. Pl. XXVI, 19.
9. (R.3003)	L. i, <i>Tu-da-sa-he.</i> A Sva(stika).	A small reddish ball-sealing, with two incuses, one oval (containing the inscription) and the other circular (containing the Svastika).	The first letter may either be <i>tu</i> , or which is less likely for this period <i>Gu</i> . The second letter must be read as <i>da</i> , and not as <i>ri</i> because (1) the letter is equal in size to 'sa.' If it were <i>ri</i> , the vowel sign would have occupied space above the line where the other letters approximately end in the upper direction. (2) Again the last letter which determines date of this inscription makes it impossible that the vowel sign should be angular. The third letter is certain, while the last is angular, which would assign this inscription palaeographically to a period later than of the Nānāghāt and Hathigumpha inscriptions. The first letter makes it earlier than Nasik and Junagadh (Rudradāman) inscriptions which have curved forms as against the angular forms of this letter. Mathura inscription which Bühlér assigns to cir. 150-100 B.C. satisfies all requirements of forms of this inscription. If, however, the last letter be read as <i>po</i> instead of <i>he</i> , it will belong to a still later period; but, as shown above, to a period earlier than the Nasik inscriptions, i.e., to the first century B.C.

*Tabulation of Seals—(Contd.)*

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Serial and Ref. No.	Symbols, legend, etc.	Description.	Remarks.
10. (R. 3686)	L.1, <i>Tu-da-sa-he.</i>	A small ball-sealing just like the above one, but dust-like blackish in colour and without the second incuse impression.	Palaeographically it belongs to exactly the same period as the above-given ball. The meaning of the symbol is not quite clear, but seems to be "In (the town of) Tuda-saha." Is it a name of the town of Rairh? If so, the suggestion re.: <i>Sa-da-vā-pa</i> (as possibly representing the ancient name of Rairh) has to be given away; it may then be the name of some other locality near about or which is far less likely even a family name of the Mitra kings.
11. (R. 717)	Svastika and taurine symbols.	A square seal (or sealing?) with a perforated knob in good preservation. Reddish blackish (dusty), like a burnt brick.	





(a) General view of excavation, Trs. N. and O., from N. E.

(b) Set of Parallel walls, Tr. N. from S. W.

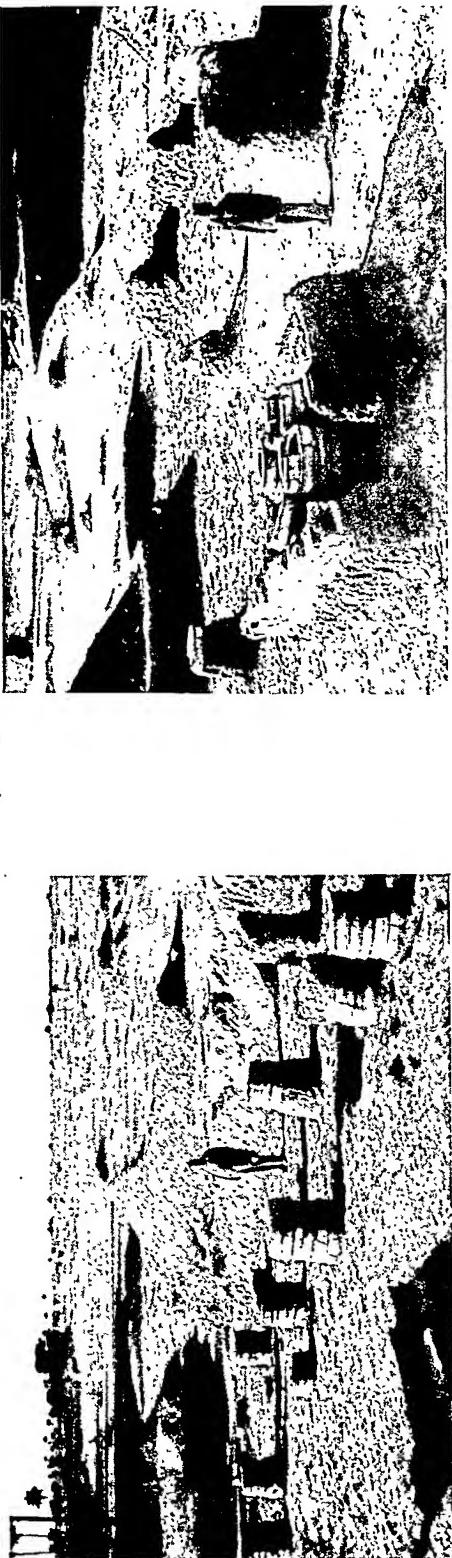


(c) Layer of iron slag below the foundation of a structure, Tr. C., from East.



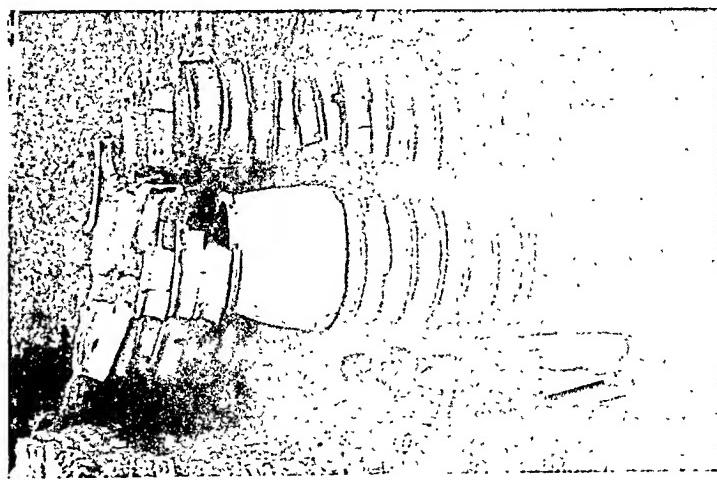
(d) Set of Parallel walls covered over by a ruined brick platform. Tr. N. from N.



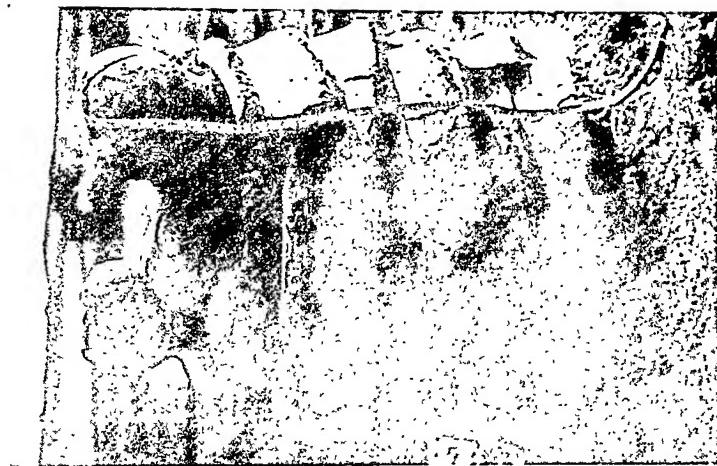


(a) Ring Pits in Tr.-G. from S.E.

(b) A set of four ring-pits within a room.  
Tr. M. Looking West.



(c) A cluster of 2 ring wells  
and a storage Jar.



(d) Ring wells shown in (b) above  
dug deep to their bases showing  
method of construction.

(e) Ring well filled with jars arranged  
in layers with mouths turned  
downwards.

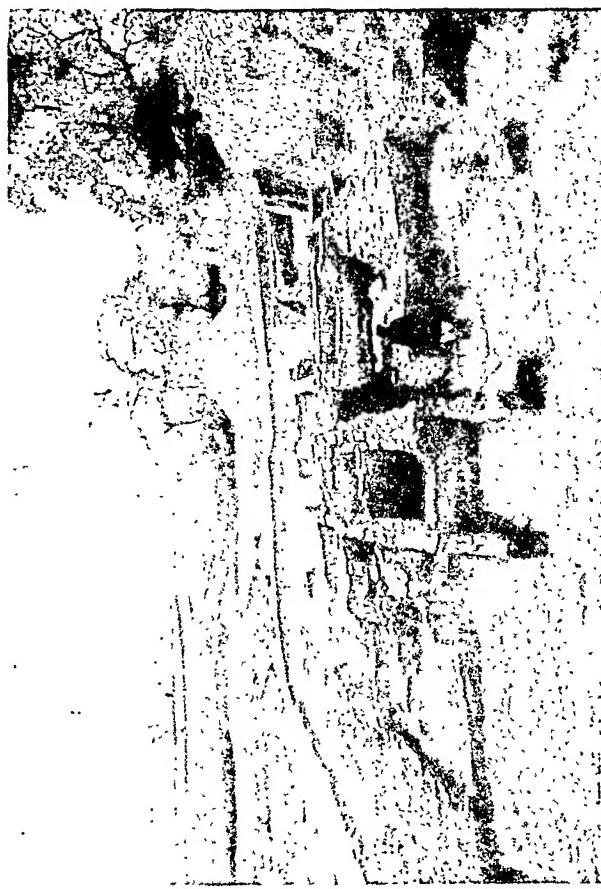




(a) Sets of parallel walls showing two periods of construction, from S.E.



(c) General view of buildings in Tr. I., from North.



(d) Brick channel of 2nd period, Tr. B, looking N.E.



(b) A small dwelling of 2nd period, Tr. C, looking N.E.

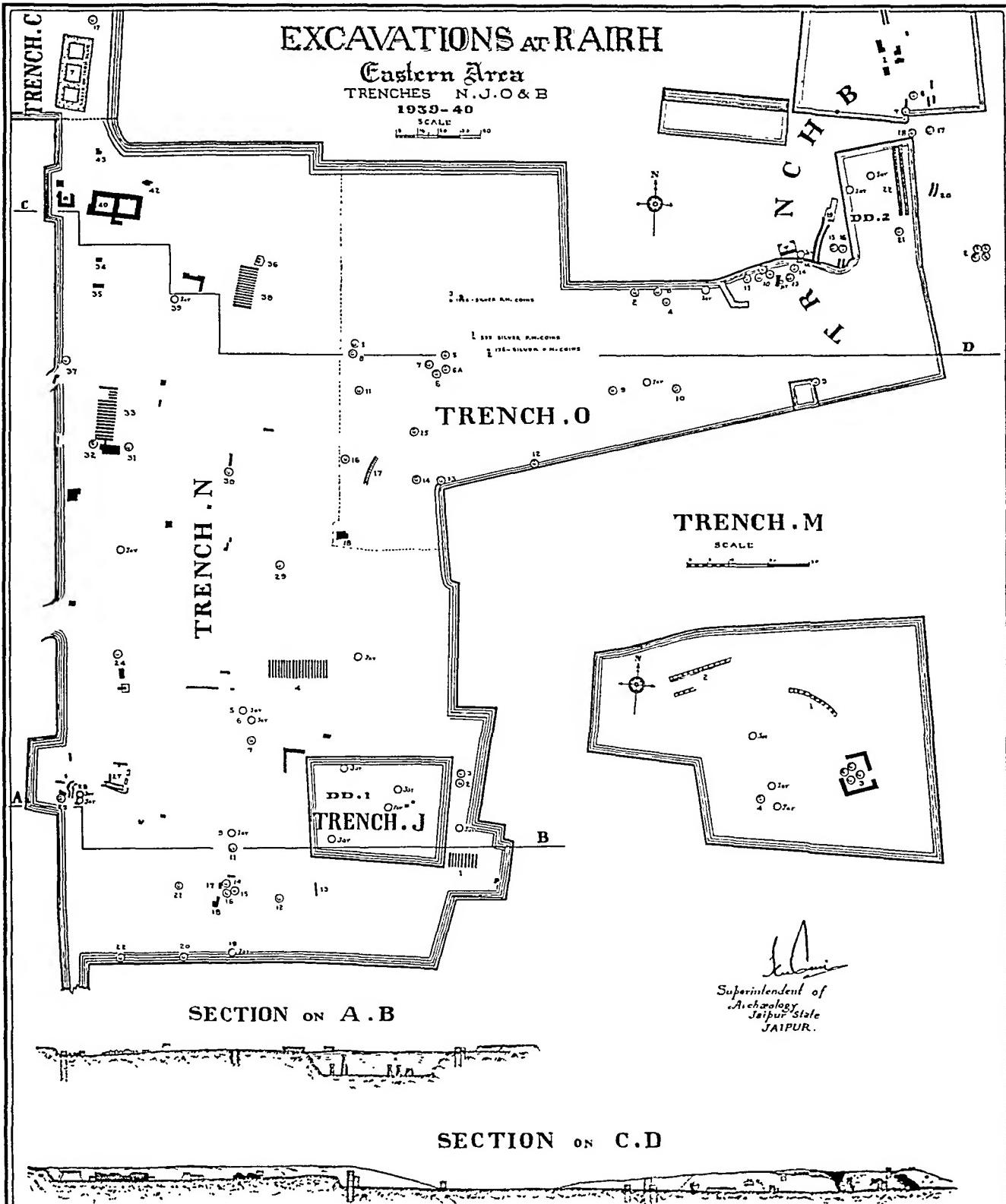


## EXCAVATIONS AT RAIRH

Eastern Area  
TRENCHES N.J.O & B  
1939-40

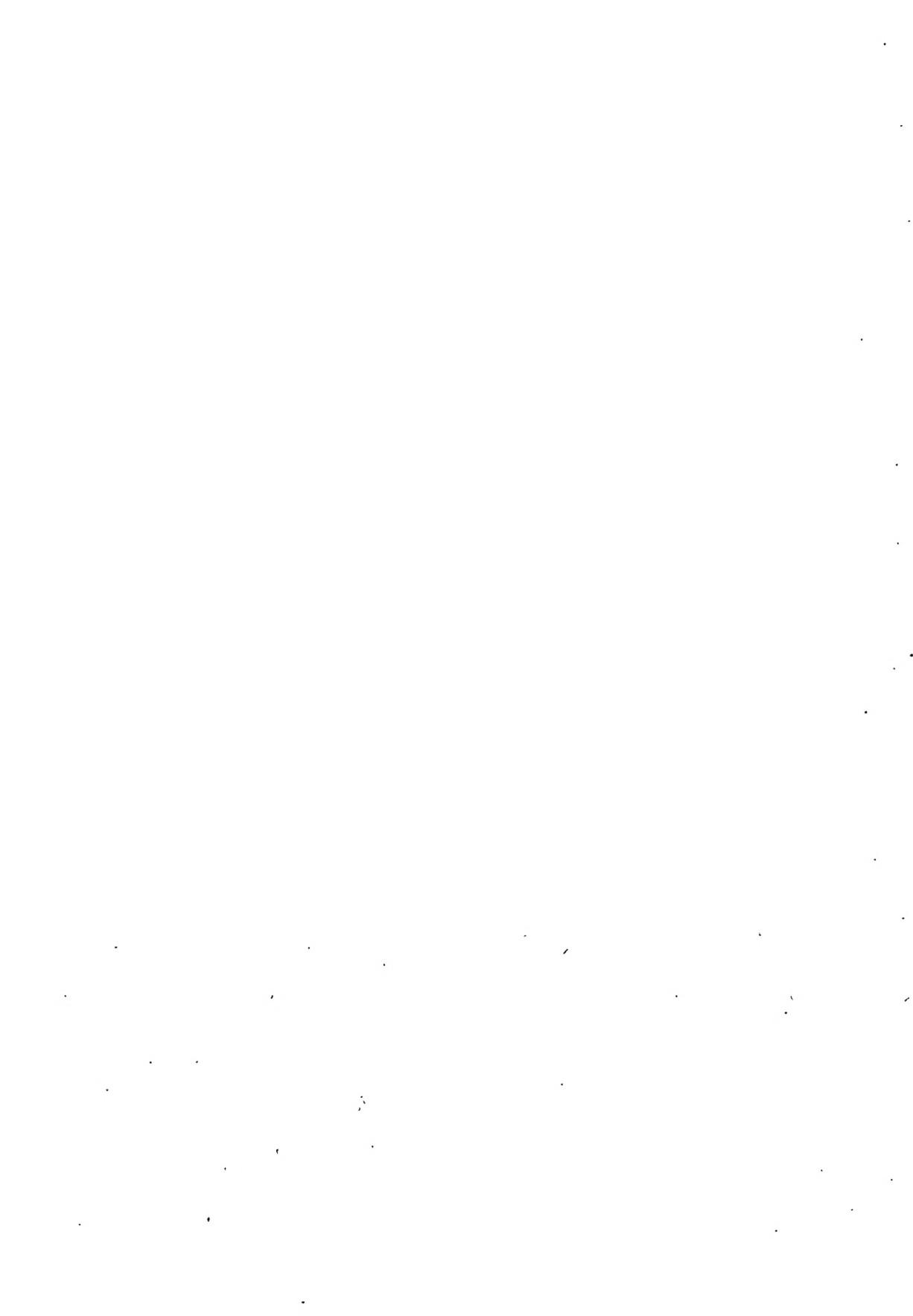
SCALE

1 INCH = 10 FEET





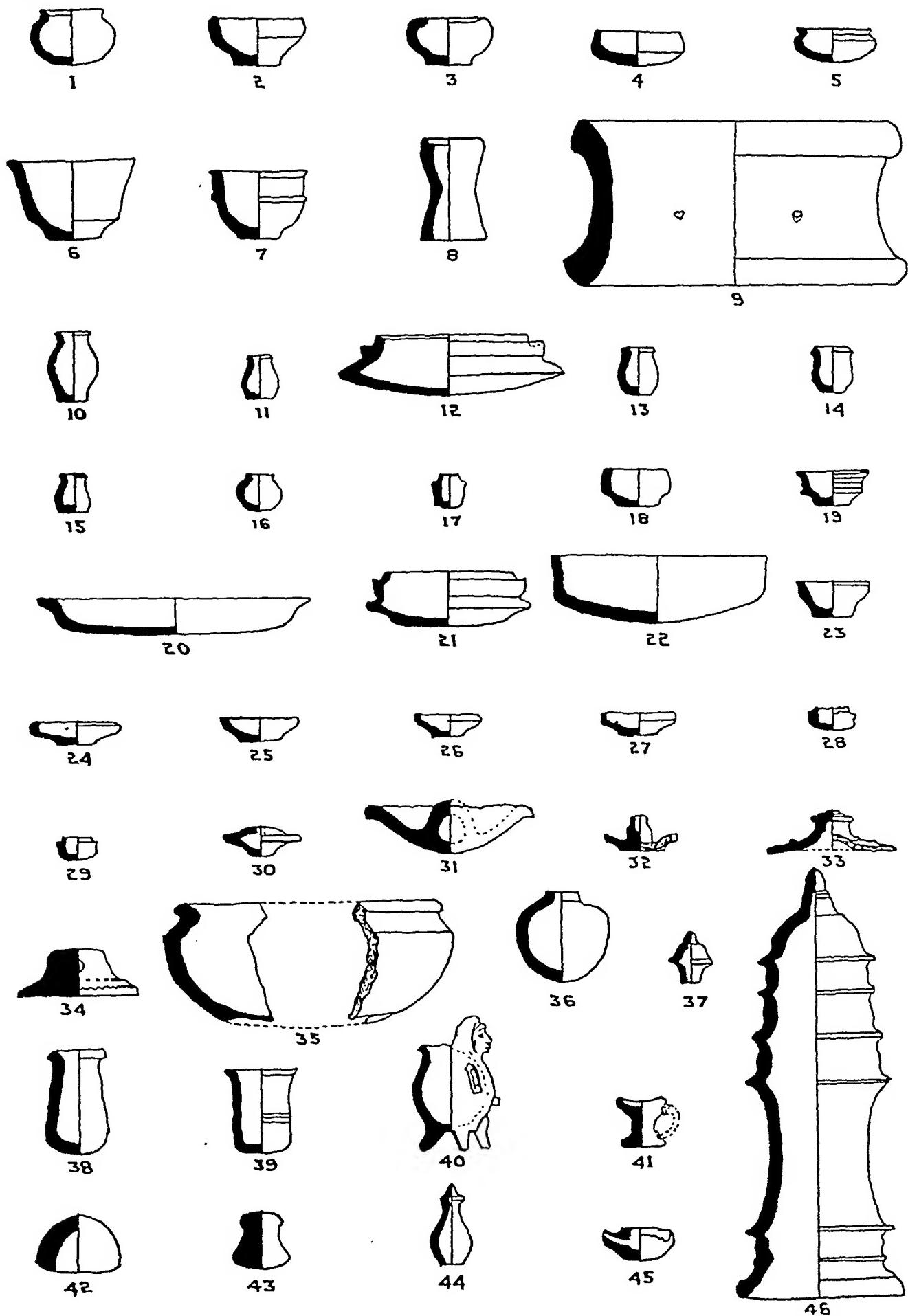




# POTTERY

PLATE VII

SCALE. 1:6

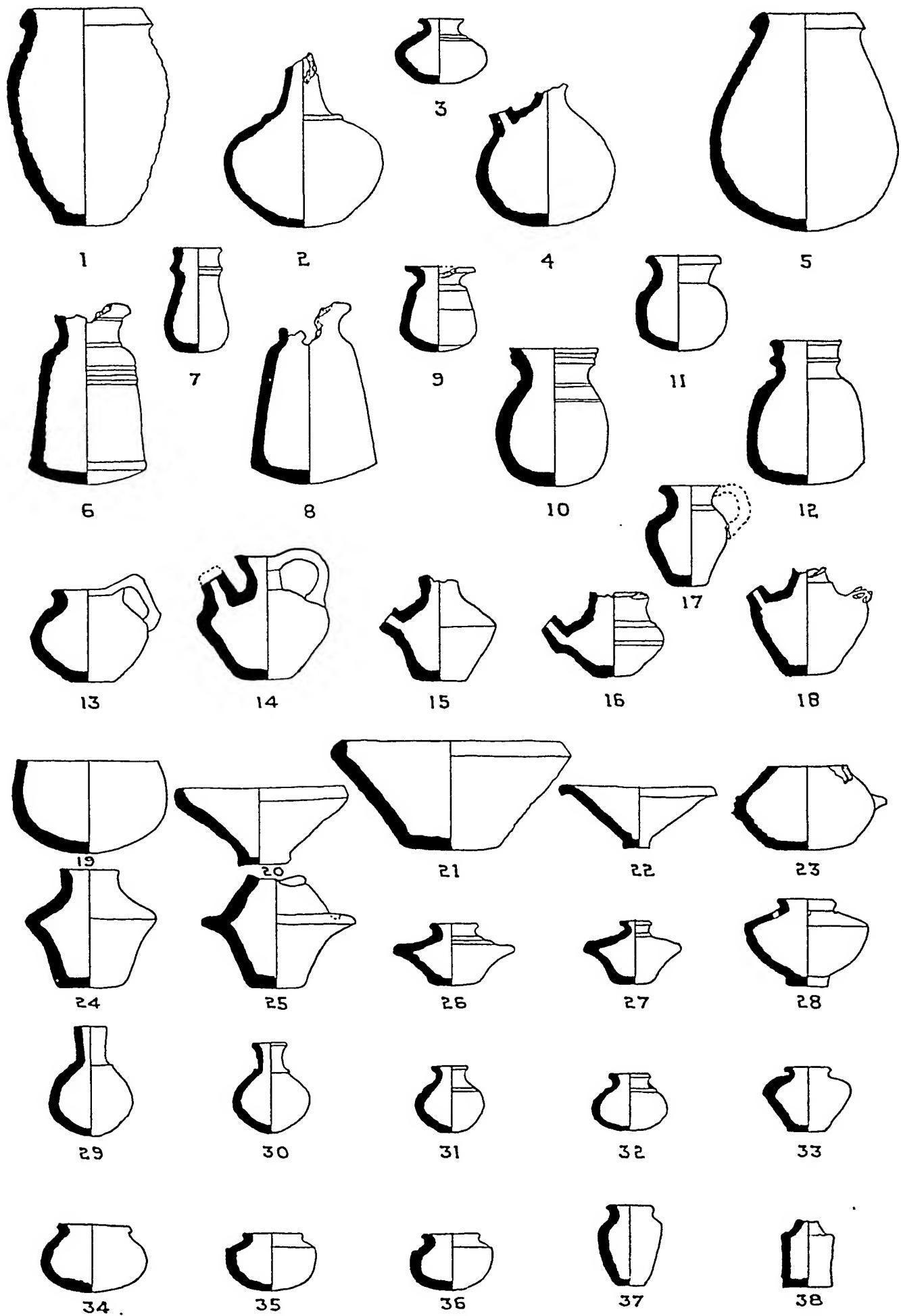




SCALE . 1:6

POTTERY

PLATE VIII

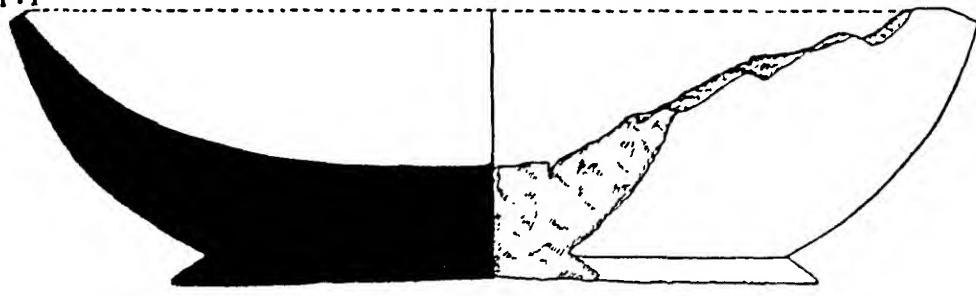




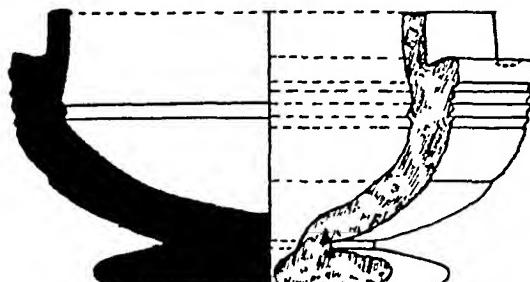
SCALE 1:1

STONE VESSELS.

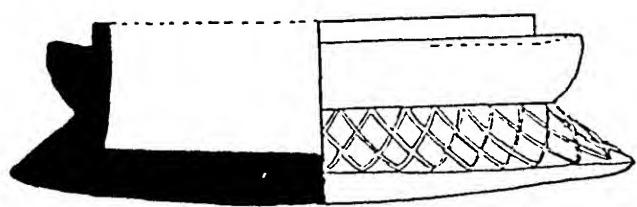
PLATE IX



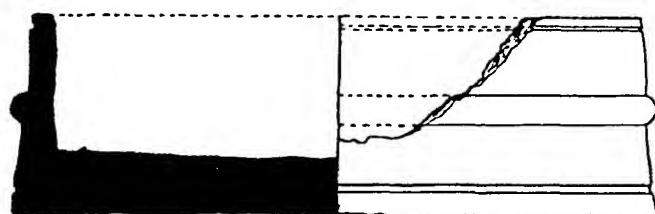
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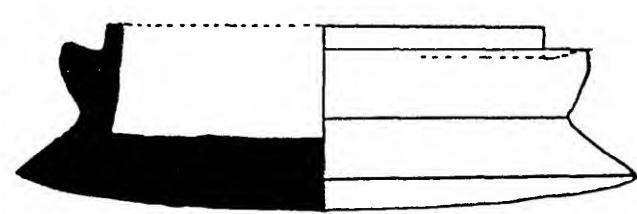
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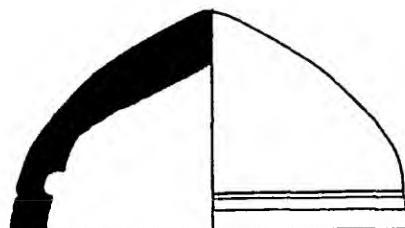
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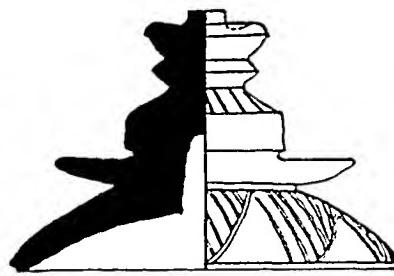
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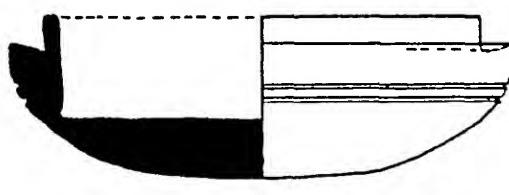
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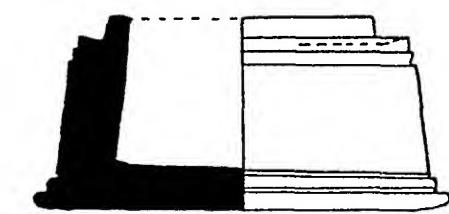
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7



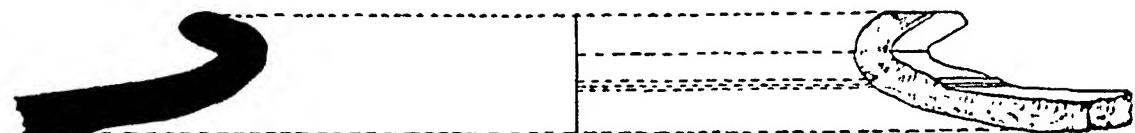
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8



10



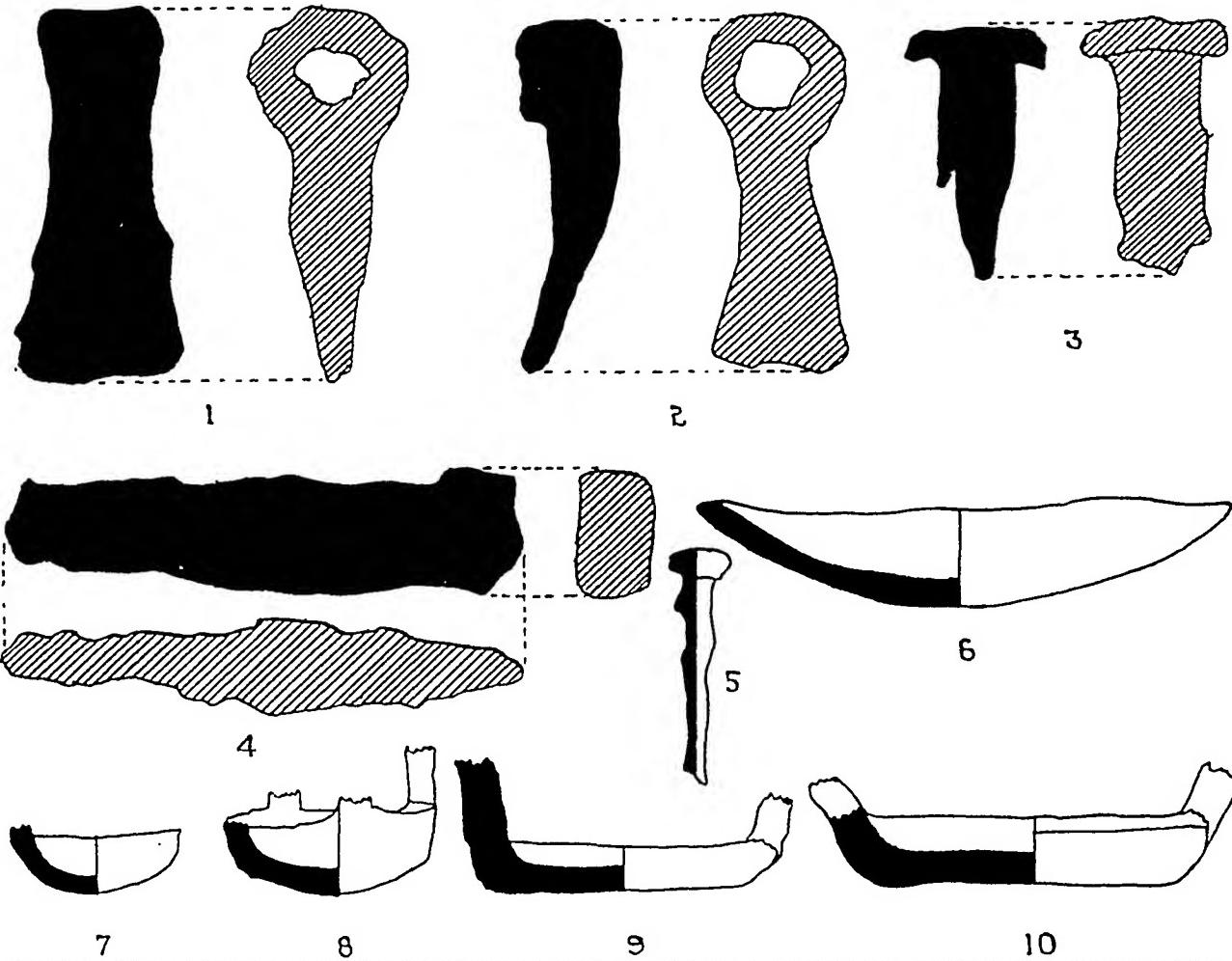
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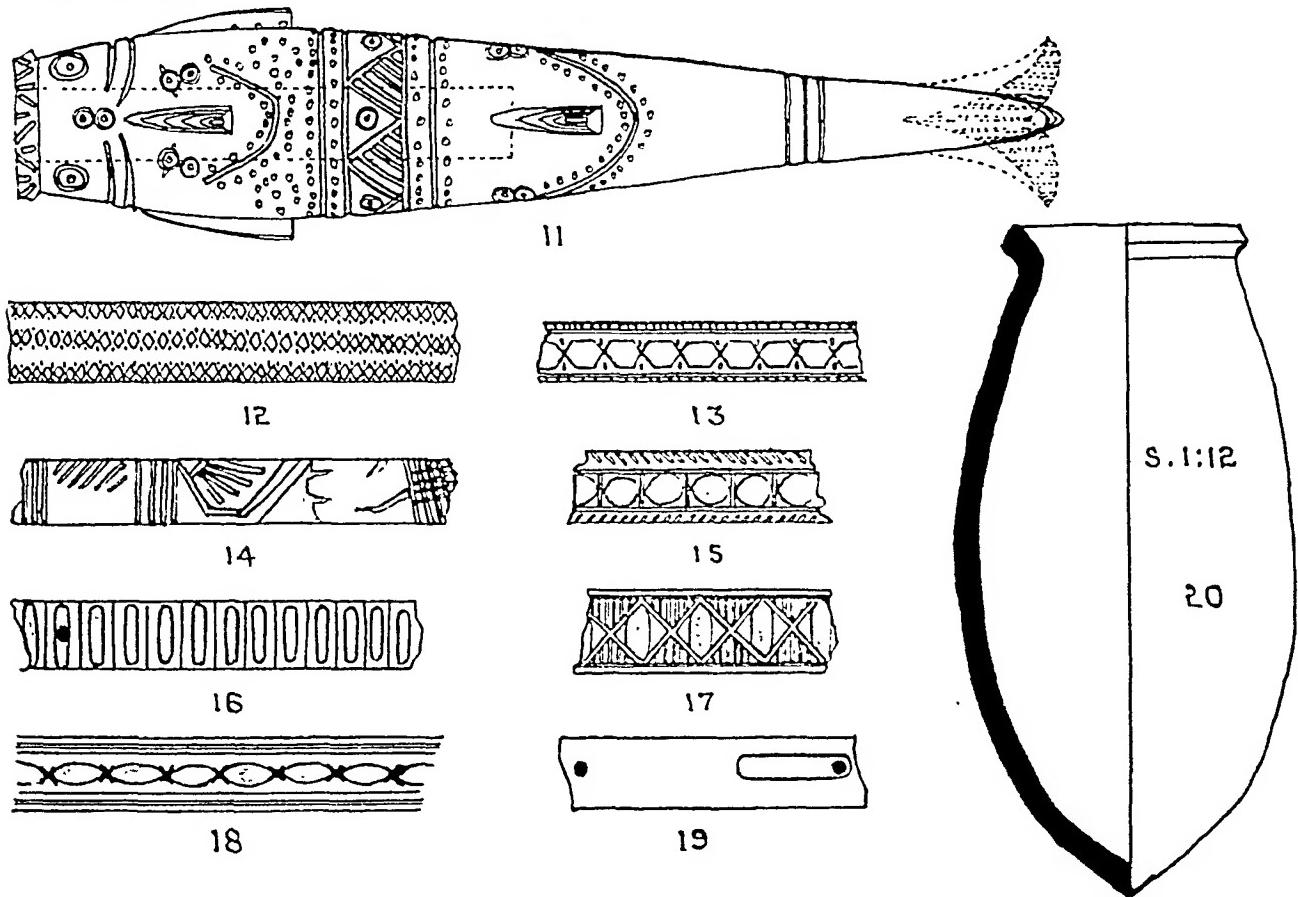
SCALE 1:3

IRON , SHELL & POTTERY OBJECTS.

PLATE X

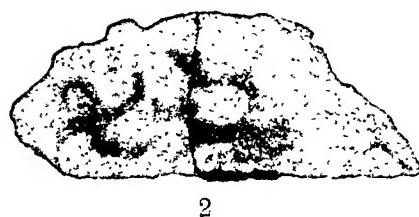


SCALE 1:1





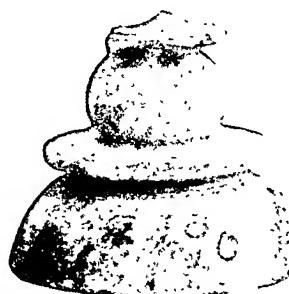
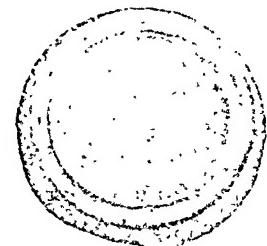
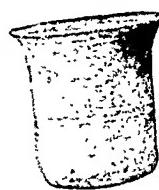
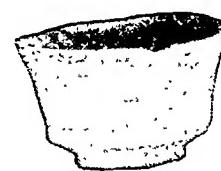
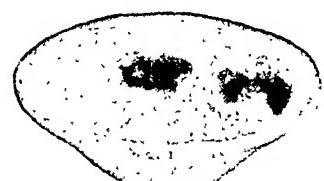
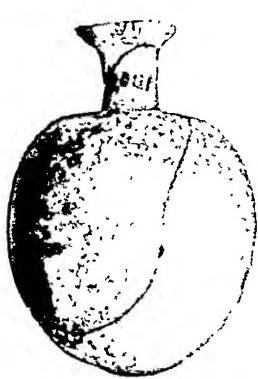
## Pottery &amp; Stone Vessels

1. Ht.  $5\frac{1}{8}$ "

2.



3.

4. Ht.  $2\frac{1}{4}$ "5. Ht.  $1\frac{1}{8}$ "6. D.  $2\frac{1}{2}$ "7. Ht.  $5\frac{1}{4}$ "8. Ht.  $3\frac{1}{8}$ "9. Ht.  $3\frac{1}{8}$ "10. D.  $6\frac{3}{8}$ ", Ht.  $3\frac{1}{8}$ "

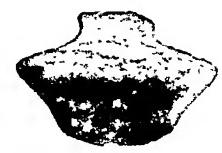
11. Ht. 4"



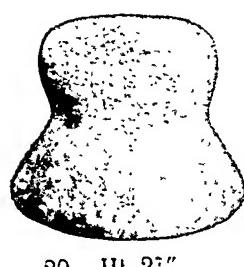
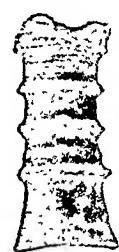
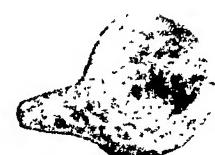
12. Ht. 5"



13.

14. Ht.  $3\frac{1}{4}$ "

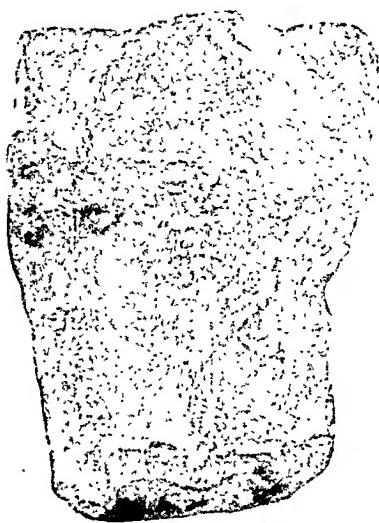
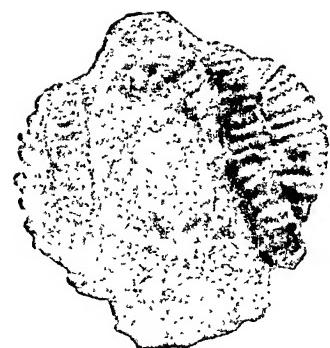
15.

20. Ht.  $2\frac{1}{8}$ "16. Ht.  $4\frac{1}{2}$ "21. Ht.  $2\frac{1}{2}$ "17. Ht.  $3\frac{1}{8}$ "18. Ht.  $1\frac{1}{8}$ "19. Ht.  $5\frac{1}{8}$ "22. Ht.  $3\frac{1}{8}$ "23. Ht.  $1\frac{1}{8}$ "

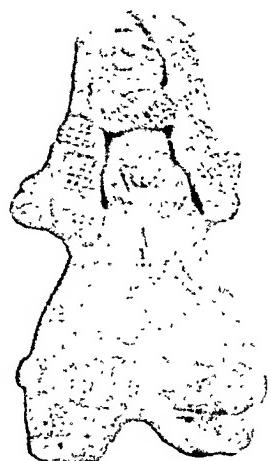
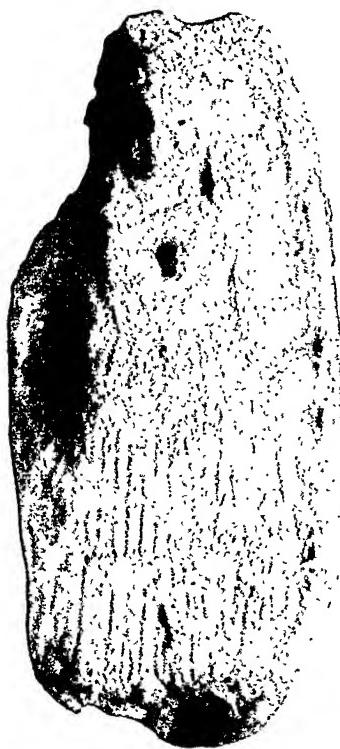
24.



## Terracotta Plaques &amp; figures

(a) Ht. 4 $\frac{3}{4}$ "(b) Ht. 4 $\frac{1}{2}$ "

(c) Ht. 3"

(f) Ht. 5 $\frac{1}{2}$ "(d) Ht. 6 $\frac{3}{4}$ "(e) Ht. 7 $\frac{1}{4}$ "(g) Ht. 6 $\frac{1}{2}$ "



## Terracotta Plaques



(a) Ht. 6"



(b) Ht. 6"

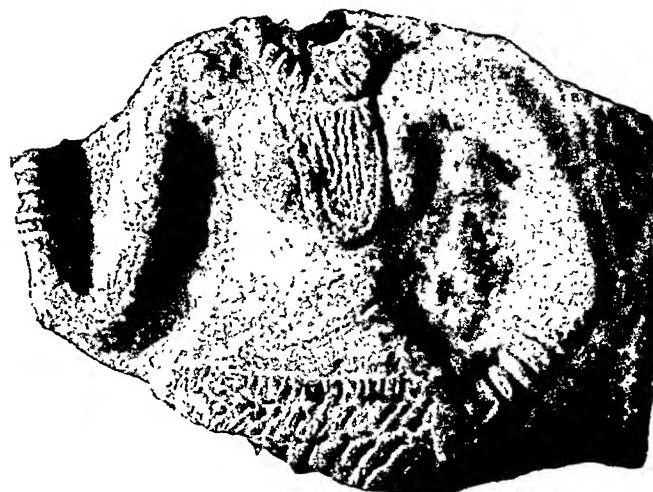
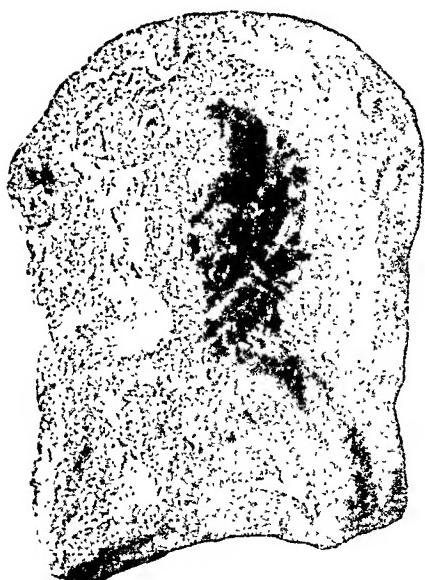
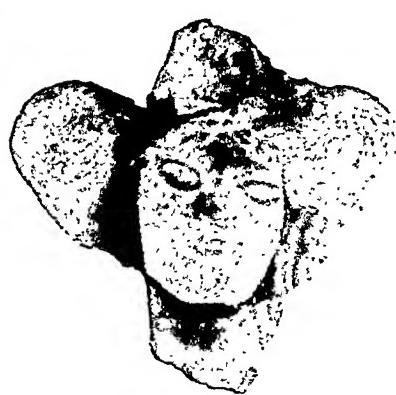


(c) Ht. 6"

(d) Ht. 5 $\frac{5}{8}$ "(e) Ht. 4 $\frac{3}{4}$ "(f) Ht. 6 $\frac{1}{2}$ "

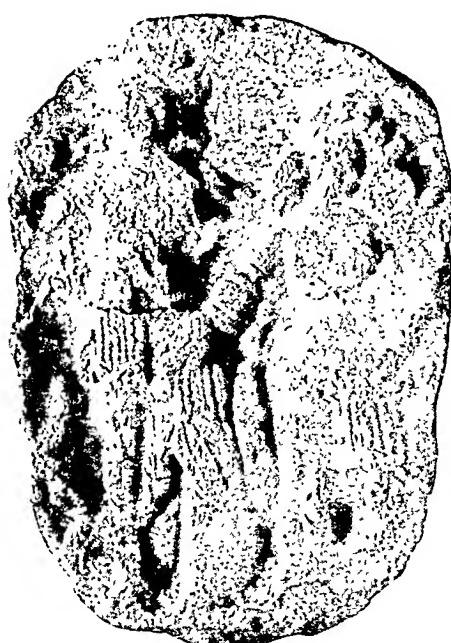
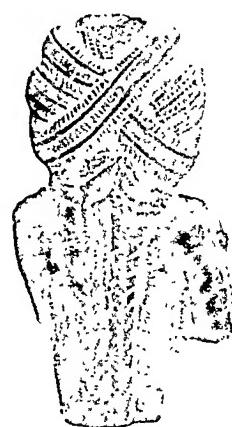


## Terracotta Plaques

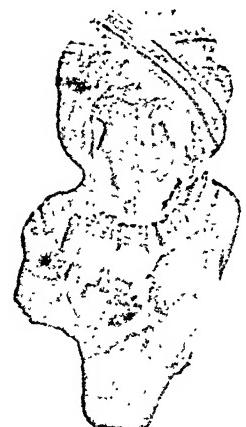
(a) Ht.  $2\frac{7}{8}''$ , B.  $3\frac{7}{8}''$ (b) Ht.  $2\frac{1}{2}''$ (c) Ht.  $3\frac{5}{8}''$ (d) Ht.  $3\frac{1}{2}''$ (e) Ht.  $2\frac{3}{8}''$ (f) Ht.  $3\frac{1}{4}''$ (g) Ht.  $2\frac{1}{2}''$



## Terracotta Plaques &amp; figures

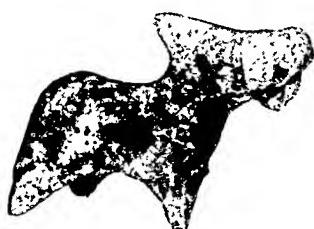
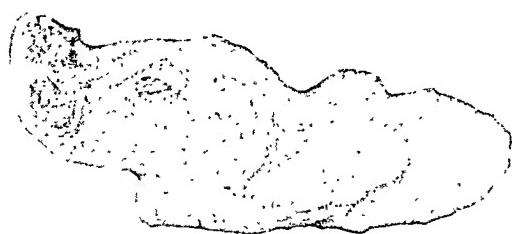
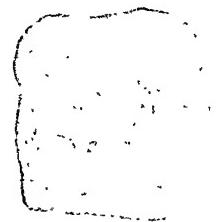
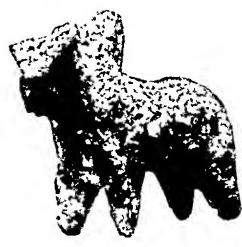
(a) Ht.  $4\frac{7}{8}''$ (b) Dimension  $4\frac{1}{2}'' \times 3\frac{1}{4}''$ (c) Ht.  $3\frac{3}{4}''$ (d) Dimension  $6'' \times 3\frac{7}{8}''$ (e) Ht.  $1\frac{7}{8}''$ (f) Ht.  $3\frac{3}{4}''$ 

(g) Front &amp; Back view Ht. 4"

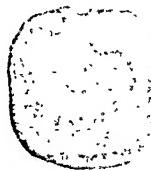




## Terracotta model animals

1. Ht.  $5\frac{1}{2}$ ", L. 5"2. L.  $4\frac{1}{2}$ "3(a) L.  $2\frac{1}{4}$ ", Ht. 2"4. L.  $2\frac{1}{4}$ "5. L.  $4\frac{5}{8}$ "3(b) Pottery mould  
and impression.6. L.  $2\frac{1}{4}$ "9. Ht.  $2\frac{1}{4}$ "8. L.  $6\frac{3}{4}$ ", Ht.  $6\frac{1}{8}$ "10. L.  $1\frac{1}{2}$ "

11(a) Impression

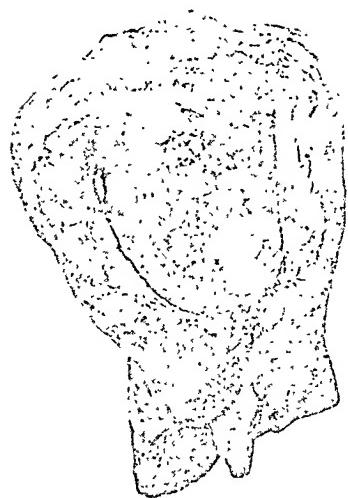
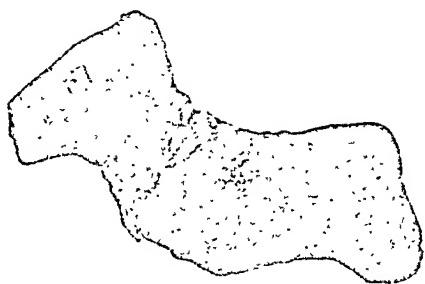
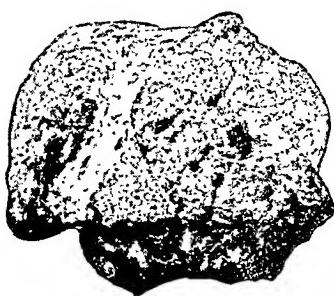


11(b) Mould

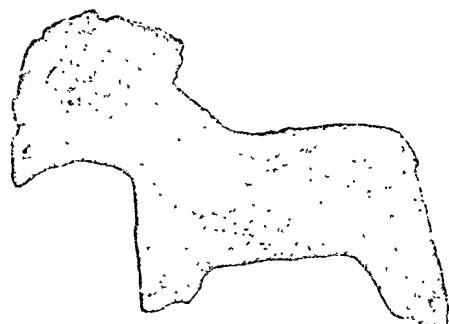
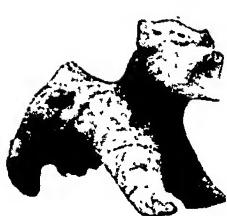
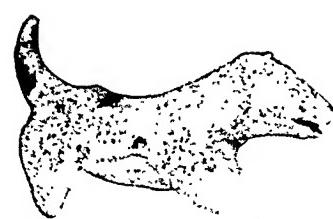
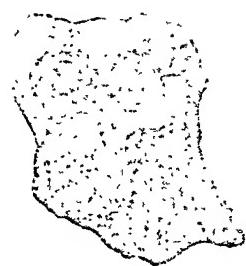
12. L.  $3\frac{7}{8}$ "



## Terracotta animal &amp; bird models.

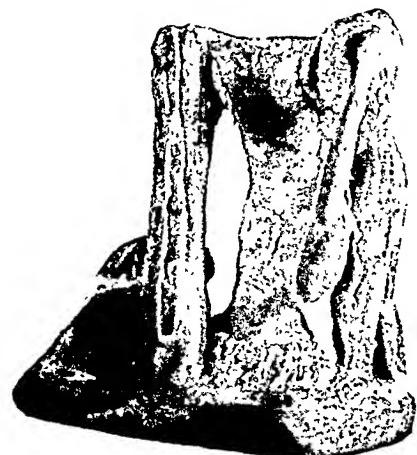
(a) Ht.  $3\frac{3}{4}$ "(b) Ht.  $4\frac{1}{8}$ "(c) L.  $4\frac{1}{8}$ "(d) Ht.  $1\frac{1}{2}$ "

(e) L. 4"

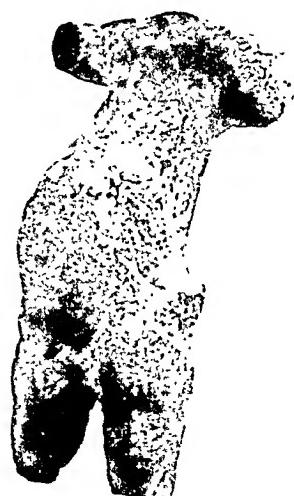
(f) L.  $3\frac{7}{8}$ "(g) L.  $3\frac{1}{8}$ "(h) L.  $2\frac{3}{8}$ "(i) L.  $6\frac{1}{2}$ "(j) L.  $2\frac{1}{8}$ "(k) L.  $2\cdot05$ "(l) Ht.  $2\frac{3}{8}$ "



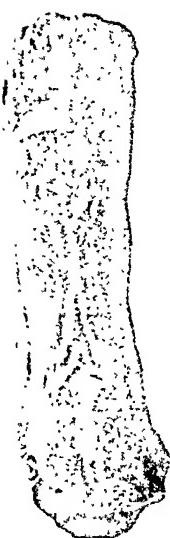
Miscellaneous objects



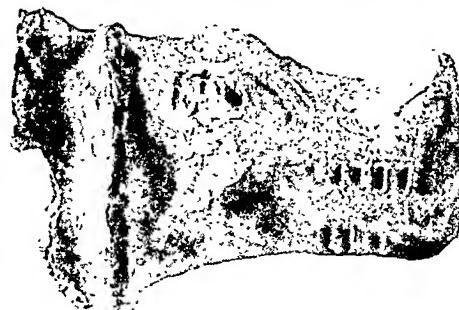
1. Ht.  $2\frac{1}{4}$ ", L.  $1\frac{3}{4}$ "



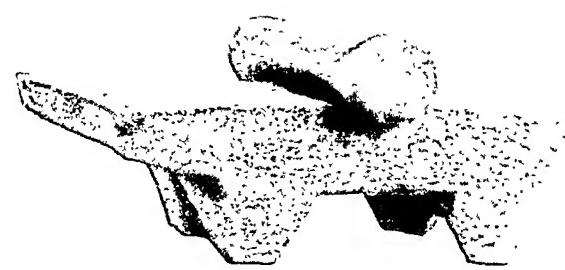
2. Ht.  $4\frac{1}{8}$ "



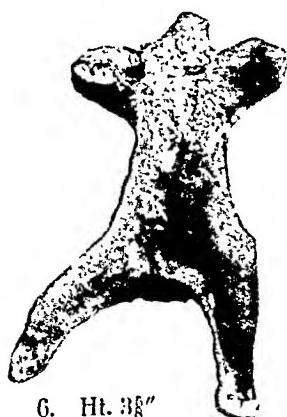
3. Ht.  $4\frac{7}{8}$ "



4. L. 3", Ht.  $2\frac{1}{2}$ "



5. L.  $15\frac{3}{4}$ ", Ht.  $7\frac{1}{8}$ "



6. Ht.  $3\frac{5}{8}$ "



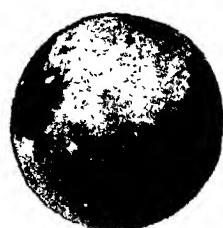
7. Ht.  $2\frac{1}{4}$ "



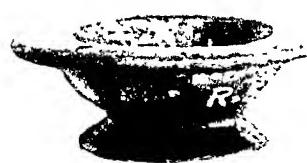
8. Ht.  $1\frac{1}{4}$ "



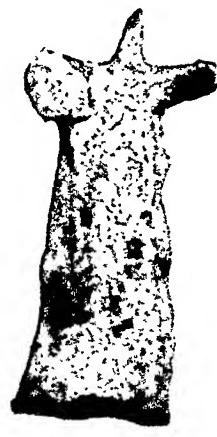
9. D.  $1\frac{3}{8}$ "



10. D. 2"



11. Ht.  $\frac{5}{8}$ ", L.  $2\frac{1}{4}$ "



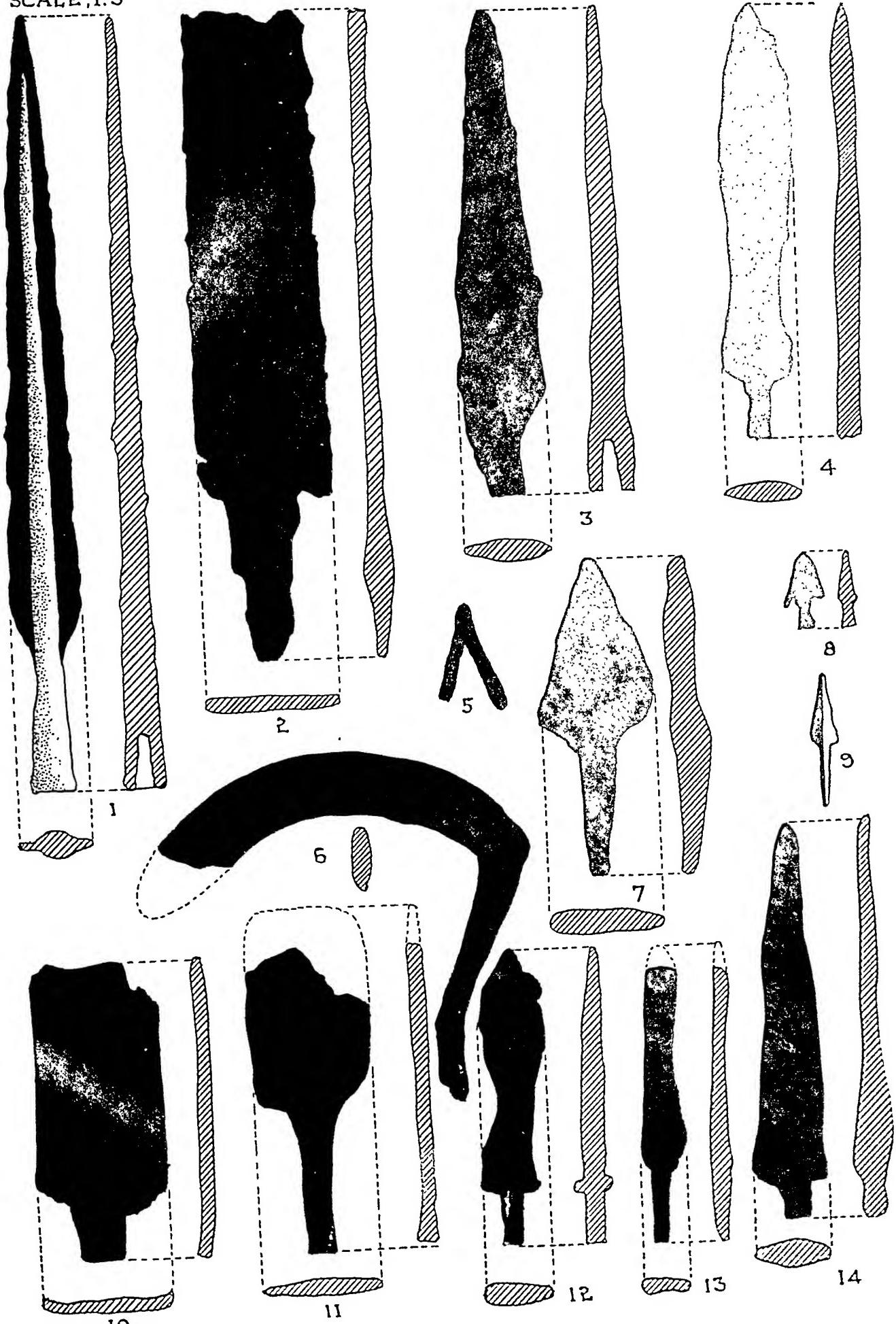
12. Ht.  $2\frac{7}{8}$ "



SCALE, 1:3

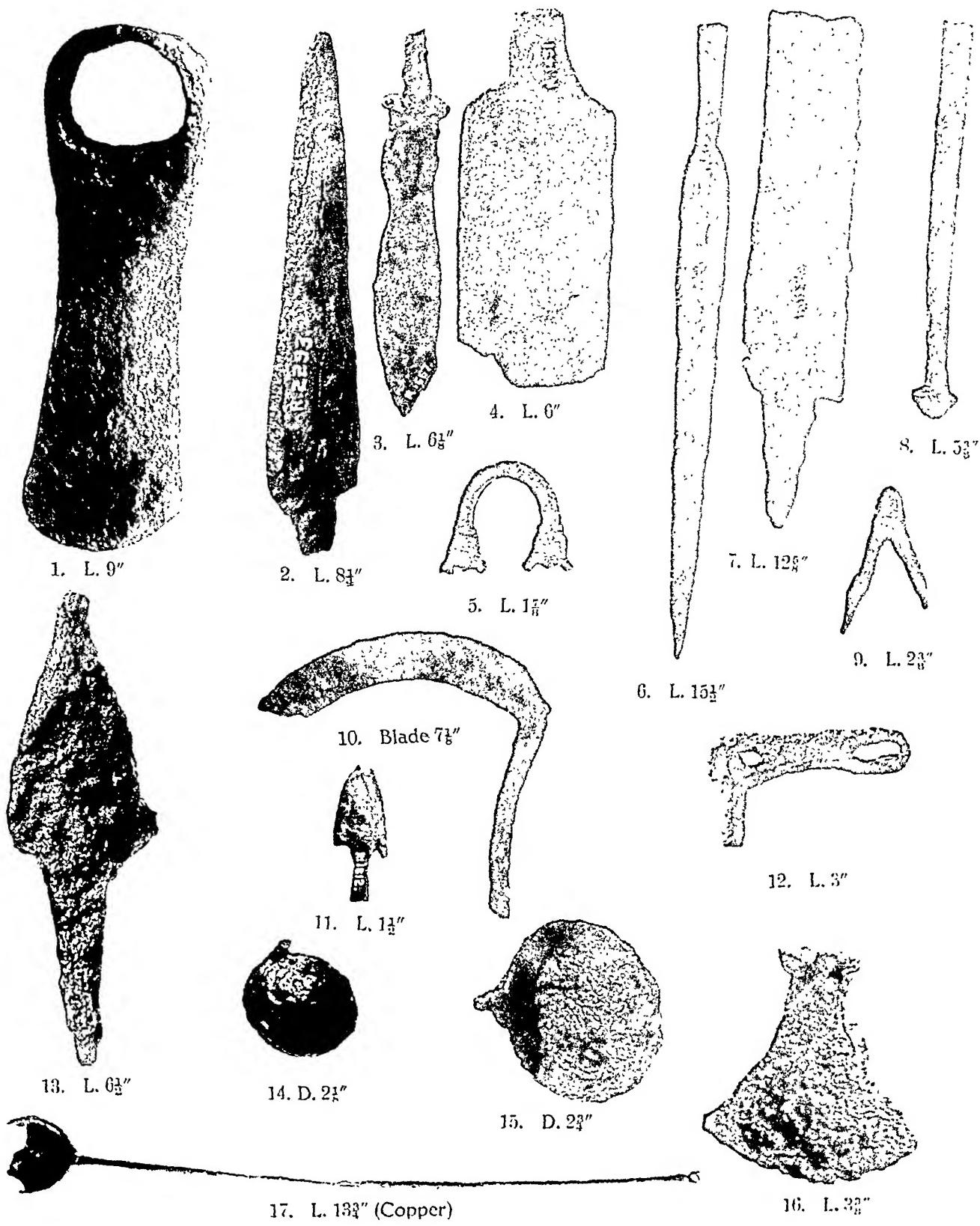
IRON IMPLEMENTS

PLATE XIX





### Iron Tools, implements etc.





## Miscellaneous objects



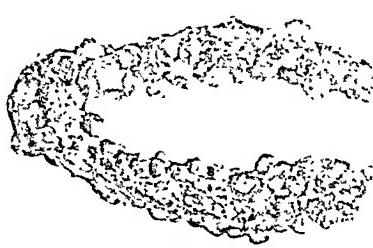
1. D. 1"



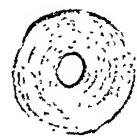
2. D. 5"



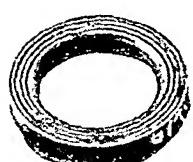
3. L. 1 16/17"



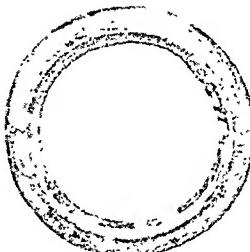
4. L. 2 3/4"



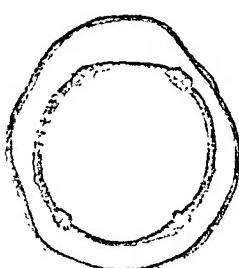
5. D. 1"



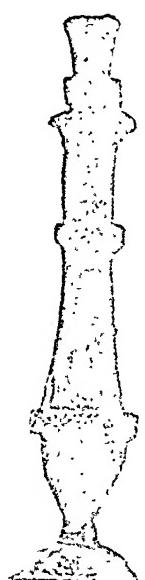
7. D. 1 1/8"



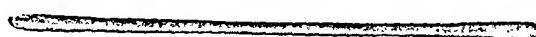
8. D. 2 1/2"



9. D. 1 7/8" &amp; 2 3/8"



6. Ht. 4 1/2"



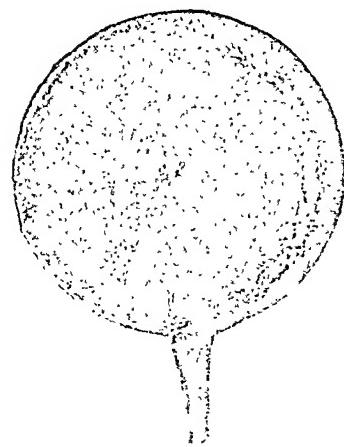
10. (Upper One) L. 5 3/4" 11. (Lower One) L. 6 5/8"



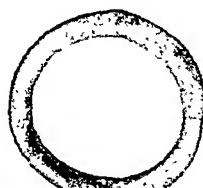
12. L. 6 1/8"



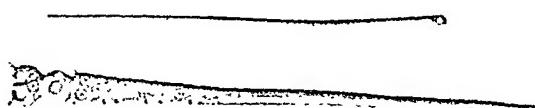
13. L. 4 5/8"



14. D. 5"



15. D. 2"



16. (Upper One) L. 4 1/8" 17. (Lower One) 5 3/8"

21



23. Ht. 4 1/2"



18



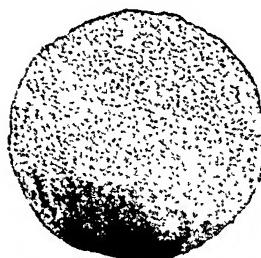
19



20



22



24. D. 4"



25. L. 1 1/2"



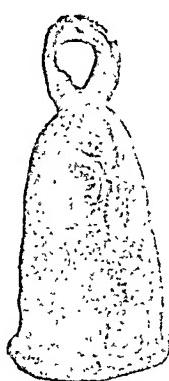
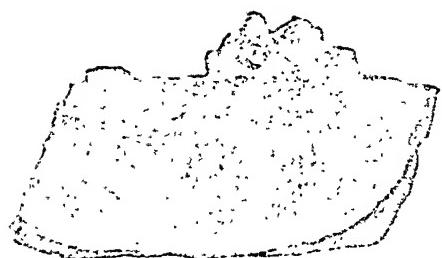
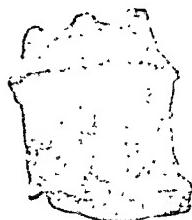
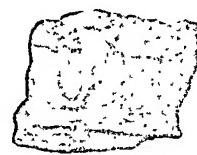
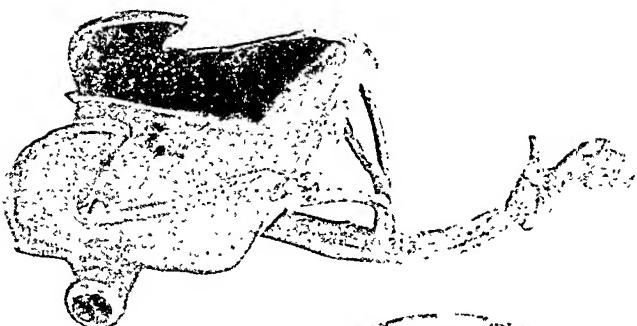
26. L. 5' 8"



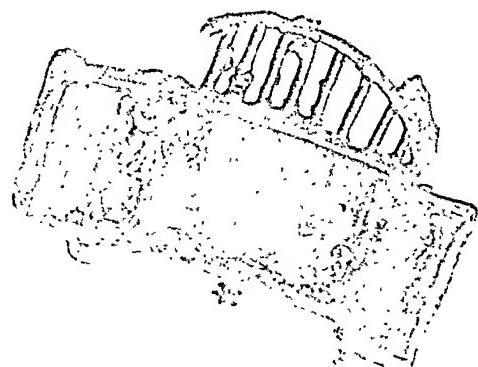
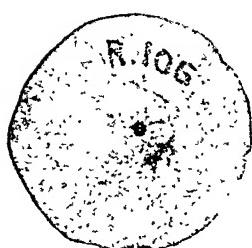
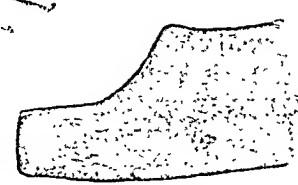
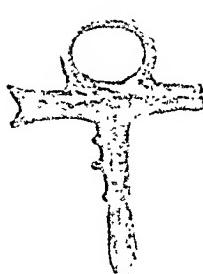
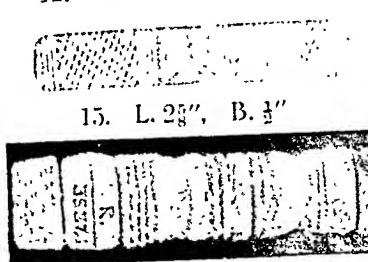
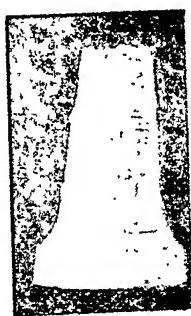
## Miscellaneous objects



1. D. 13"

2. Ht. 2 $\frac{3}{4}$ "3. Ht. 5 $\frac{1}{2}$ "4. Ht. 2 $\frac{3}{4}$ "5. Ht. 2 $\frac{3}{4}$ "

6. L. 4", B. 2"

7. D. 1 $\frac{1}{4}$ "8. L. 3 $\frac{1}{2}$ ", B. 2 $\frac{1}{4}$ "9. D. 3 $\frac{3}{8}$ "10. Ht. 1 $\frac{1}{2}$ "11. L. 2 $\frac{3}{8}$ "12. L. 1 $\frac{1}{4}$ ", B. 3"14. L. 3 $\frac{3}{8}$ ", Ht. 5"16. L. 3 $\frac{3}{4}$ "17. L. 3 $\frac{1}{2}$ ", D. 1"18. L. 2 $\frac{3}{8}$ "19. L. 2 $\frac{1}{2}$ "



SCALE. 1:1



1

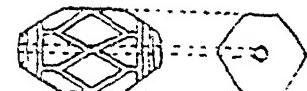


2

BEADS



3



4



5



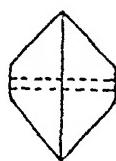
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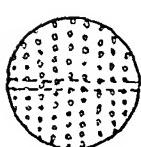
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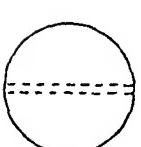
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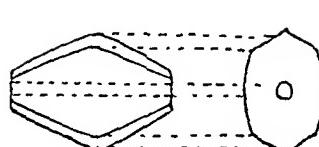
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10



11



12



13



14



15



16



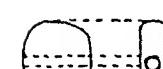
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18



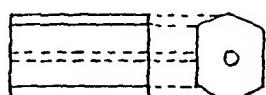
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20



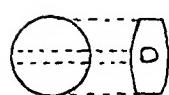
21



22



23



24



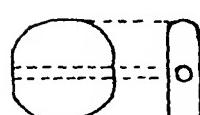
25



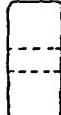
26



27



28



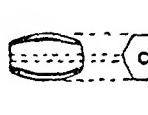
29



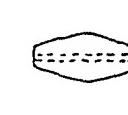
30



31



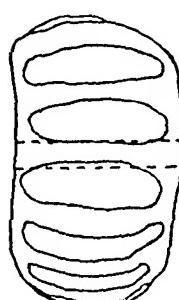
32



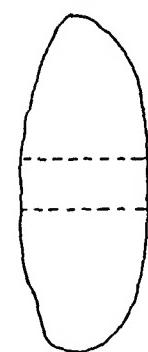
33



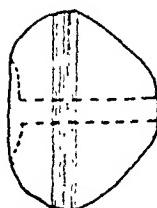
34



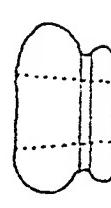
35



36



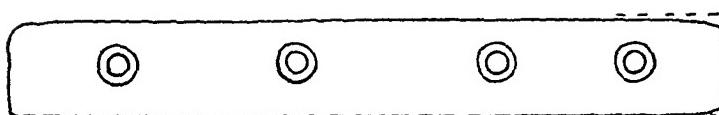
37



38

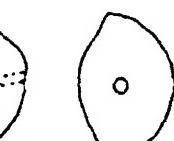
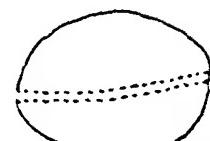


39



40

DICE

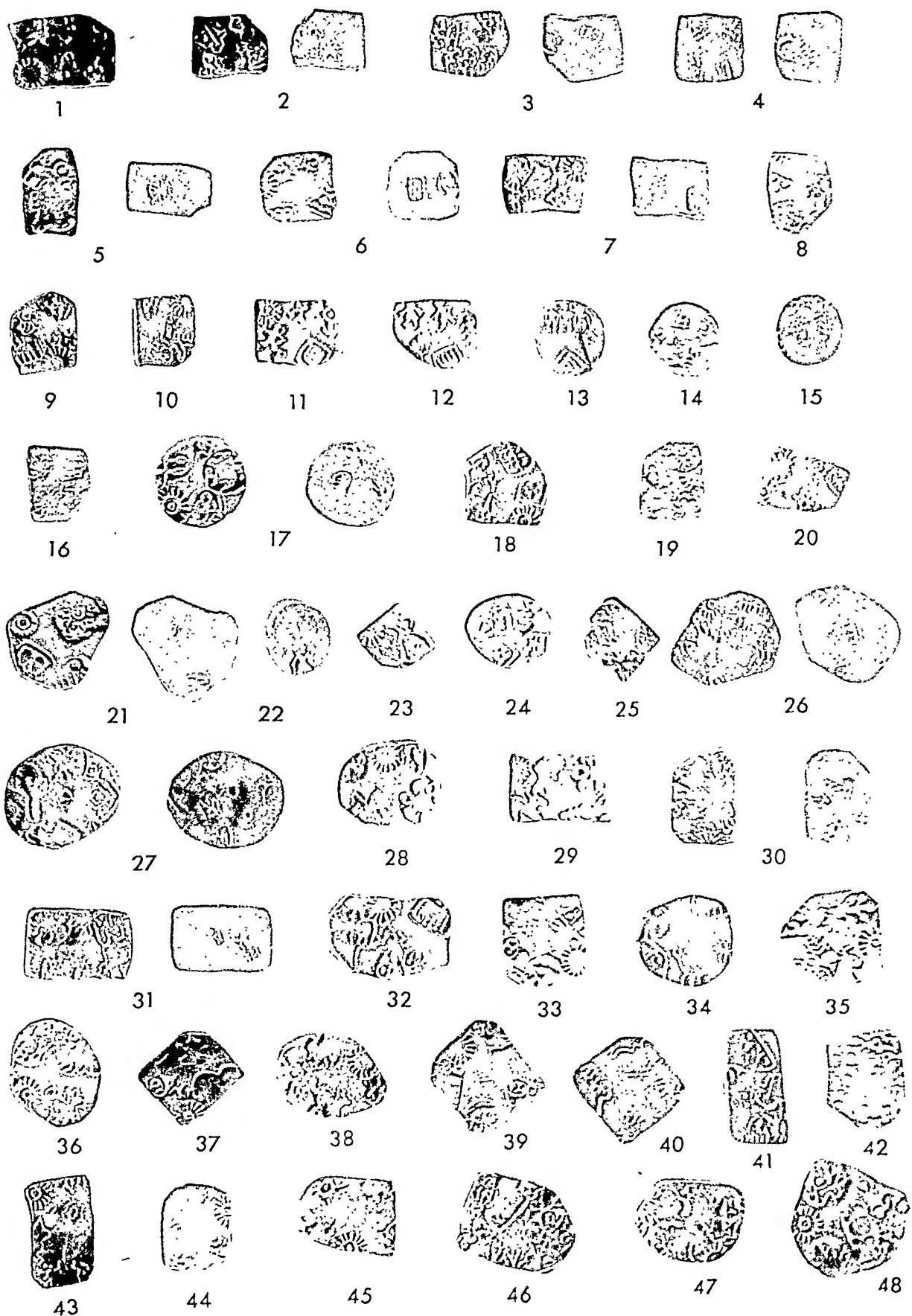


41

PLATE XXIII

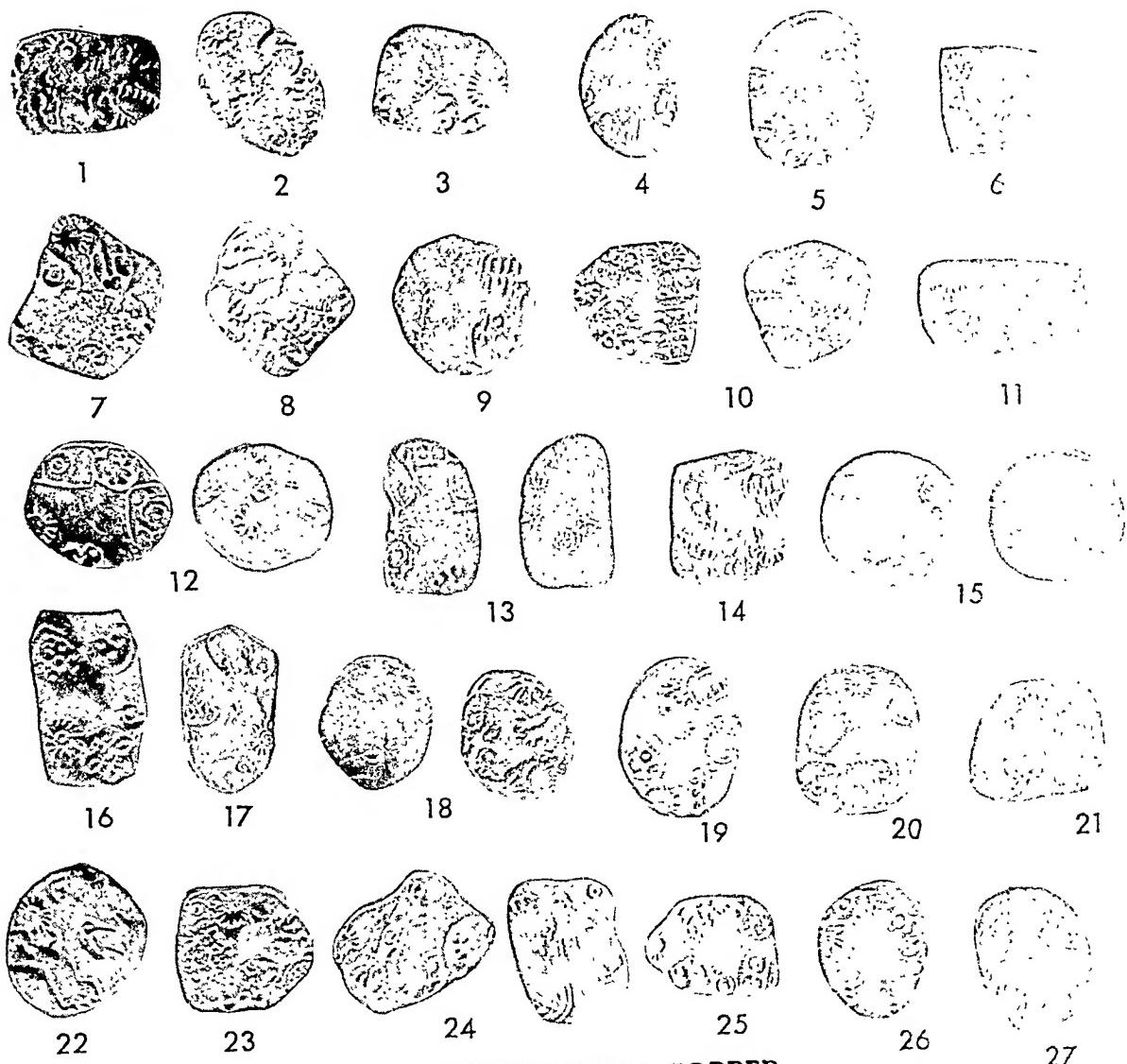


## PUNCH-MARKED SILVER

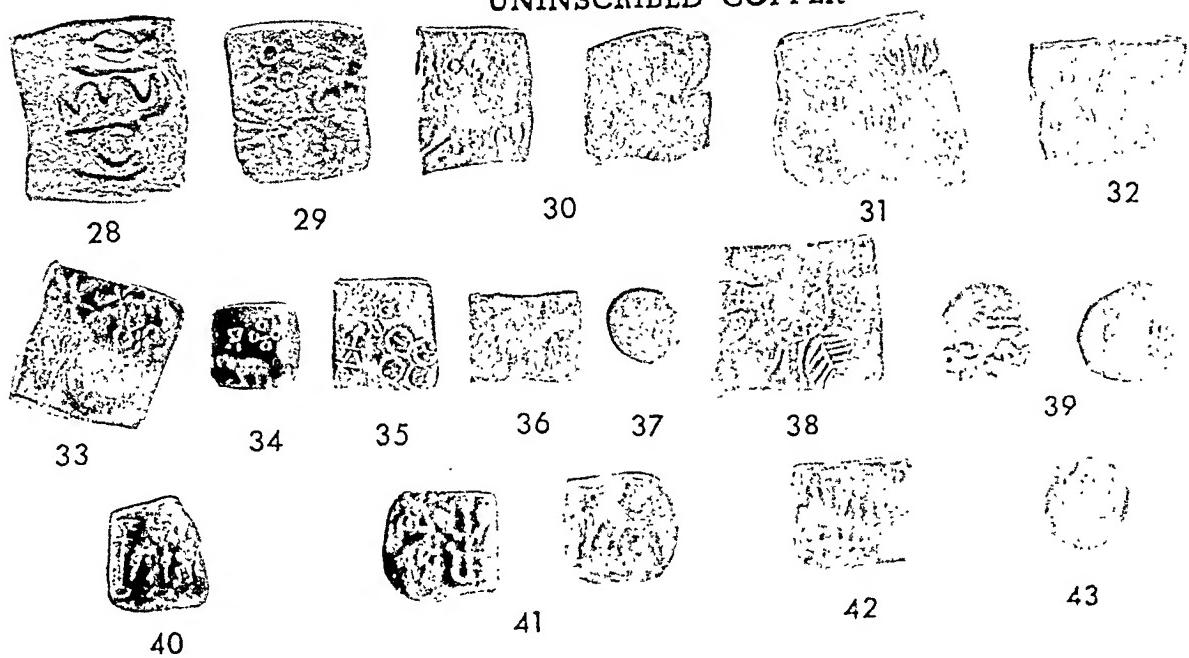




## PUNCH-MARKED SILVER

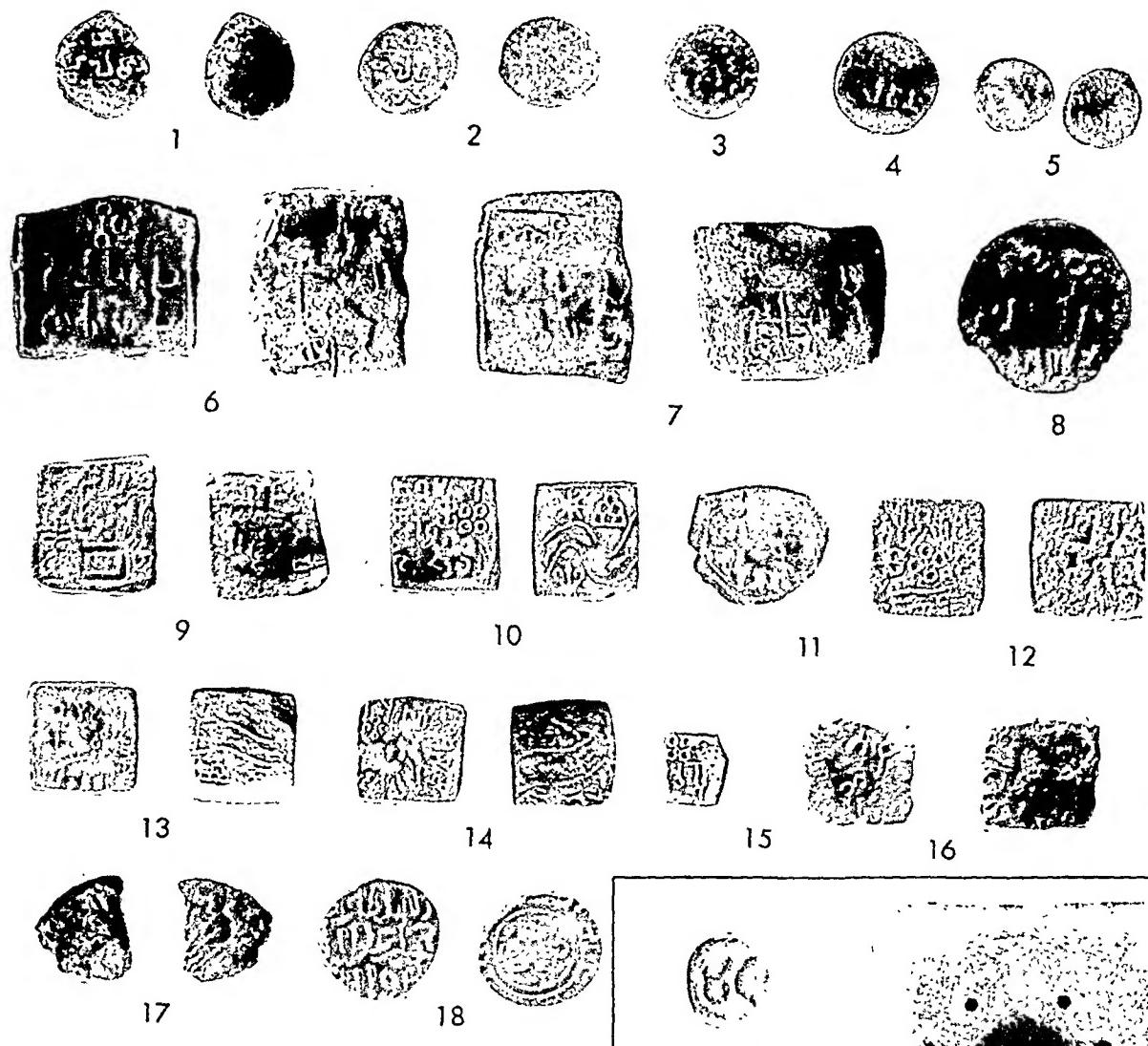


## UNINSCRIBED COPPER

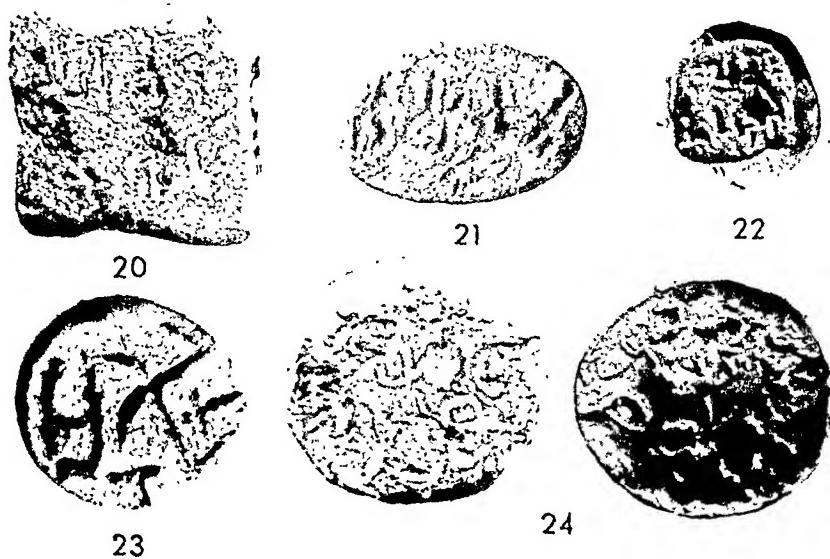




## INSCRIBED COPPER



## SEALS

Inscribed stone slab  
obverse & reverse

25



## LIST OF 3075 SILVER PUNCH MARKED COINS

No. of coins in hoard of:-	Obverse					Reverse	B.M. classification					
	326	99	132	535	1983		Class	Group	Variety			
3	-	-	-	4	9			1	1	a?		
1	-	-	-	-	1	" " " " "	" 龍	1	1	a?		
-	-	-	-	-	2	" " " " "	[?]	"	1	1	?	
-	-	1	-	-	-	" " " " "	[?]	 & indistinct mark	1	1	?	
39	-	15	77	"	"			2	1	a	" Pl. III. 1	
8	2	-	2	26	"	" " " " "	" C.M. 	2	1	b	" Pl. III. 10	
-	-	-	-	1	"	" additional	"	"	2	1	b?	Pl. XXIV , 1
2	10	-	94	278	"	" " " " "		"	2	1	c?	Allan, Pl. III , 5
5	2	-	4	20	"	" " " " "		"	2	1	e	" Pl. III , 15
-	-	-	1	-	"	" " " " "		"	2	1	e?	
-	-	-	1	-				"	2	1	f	" Pl. III , 8
3	-	-	4	9	"	" " " " "		"	2	1	g	" Pl. III , 16
-	-	-	1	-	"	" " " " "			2	1	g?	
-	11	3	128	195					2	II	a	" Pl. IV , 12
-	1	-	4	22	"	" " " " "	"		2	II	b?	" Pl. X , 18
-	1	-	3	-	"	" " " " "	"		2	II	b?	
-	-	-	12	10	"	" " " " "	"		2	II	b?	
-	-	-	5	27	"	" " " " "	"		2	II	b?	Pl. XXIV , 2
-	-	-	1	-	"	" " " " "	"		2	II	b?	

C.M : COUNTER MARKED



No. of coins in hoard of :-						Obverse		Reverse		P.M. classification		
526	99	132	535	1983						Class	Group	Variety
-	-	-	1	-					2	II	b?	
-	-	-	1	-		" " " "	" "	" "	2	II	b?	
-	-	-	1	-		" " " "	" "	" "	2	II	b?	
2	1	-	6	9				"	2	II	c Allan, Pl. IV, 10	
3	1	-	-	3			"		2	III	e? 2nd symbol composed from various coins	
-	-	-	-	1		" " " additional "	" " "	" " "	2	II	e?	
1	-	-	-	2		" " "			2	II	e? Pl. XXIV, 3	
-	-	-	2	3					2	II	g? Pl. XXIV, 4	
1	-	-	-	-		" " " "			2	II	g?	
-	1	-	5	-					2	II	h Allan, Pl. XLII, 3	
-	-	-	2	2					2	II	new Pl. XXIV, 5	
12	-	-	3	17					2	III	a Allan, Pl. IV, 7	
7	-	-	-	22		" " " "			2	III	b? Pl. XXV, 6	
-	-	-	-	3		" " " "	" "	" "	2	III	c? Pl. XXIV, 7	
1	1	-	2	4		" " " "		" one c.m. & other indistinct"	2	III	d Allan, Pl. XLII, 4	
-	-	-	-	1		" " " additional "		" "	2	III	e "Pl. XLII, 6	
-	-	115	1	-		" " " "		" "	2	III	f "Pl. XLII, 7	
-	-	1	-	-		" " " "	" c.m. "		2	III	g " Pl. IV, 24	
11	-	-	-	5		" " " "		" "	2	III	h or new " Pl. XXIV, 8	
10	3	-	2	10		" " "		" "	2	IV	a " Pl. VI, 6	

(a) on one coin only.

(b) Including c.m. such as on 7 coins only.



No. of coins in hoard of :-					Obverse	Reverse	B.M. classification			
326	99	132	535	1963			Class	Group	Variety	
-	-	-	2	5			2	IV	a?	Pl.xxiv, 9
5	-	-	-	5	" " "	" "	2	IV	b	
8	-	-	8	8	" " "	" "	2	IV	c	Allan, Pl.XLI, 12
4	-	-	3	10	" " " "	" traces of indistinct stamps	2	IV	d	" Pl.XLI, 14
4	1	-	8	2	" star	" "	2	IV	e	" Pl.V, 4
-	-	-	1	-	" " " "	" "	2	IV	f	" Pl.XLI, 20
2	-	-	-	3	" " " "	" "	2	IV	g	" Pl.XLI, 21
9	-	-	2	-	" star	" "	2	IV	h	" Pl.XLI, 23
2	-	-	-	1	" " " "	" Human figure indistinct	2	IV	h?	
-	-	-	-	14	" " " "	" traces of 2	2	IV	h?	
-	-	-	-	1	" star sun	" "	2	IV	i	" Pl.XLI, 16
3	-	-	3	-	" star deer, elephant	" "	2	IV	l	" Pl.VI, 12
2	1	-	-	3	" star, elephant, deer, animal	" "	2	IV	m?	Pl.xxiv, 10
-	-	-	1	-	" " "	" illegible	2	IV	m	Allan, Pl.IV, 20
1	-	-	-	4	" star, elephant, castle, elephant	" "	2	IV	o?	" Pl.XLI, 1
-	-	-	-	1	" star, elephant, deer, [?]	" "	2	IV	p	" Pl.VI, 11
3	2	-	2	-	" star, elephant, deer, square, square	" indistinct marks	2	IV	q	" Pl.VI, 7
-	-	-	-	5	" " " "	" ORA	2	IV	r	" Pl.VI, 4
-	-	-	-	1	" " " "	" indistinct mark	2	IV	s	" Pl.XLI, 3
2	3	10	17	90	" star, sun, elephant, square, deer, elephant, square, square	" "	2	IV	u	sl. symbol different in Allan's catalogue. Pl.xxiv, 11

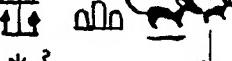
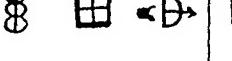
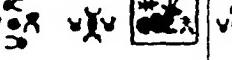
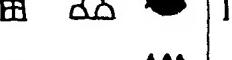
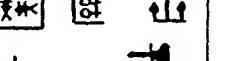
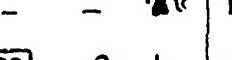


No. of coins in hoard of:-						Obverse	Reverse	B.M. classification		
	326	99	132	535	1983			Class	Group	Variety
- - - - -	-	-	-	2	7			2	IV	u
- - - - -	-	-	-	2	4	" " " "	" C.M.	2	IV	u
- - - - -	-	-	-	1	1	" " " "	" C.M.	2	IV	u
- - - - -	-	-	-	-	2	" " " "	" C.M.	2	IV	u
4 1 - - -	9	" " " "	"	" & one more	"	2	IV	v?		
- - - - -	3	" " " "	"	"		2	IV	v?		
- - - - -	2						"	2	IV	new Pl. xxiv , 12
- - - - -	1	" " " "			" ?	"	2	IV	new Pl. xxiv , 13	
1 - - - 3	3						indistinct	2	IV	new Pl. xxiv , 14
- - - - -	9	" " " "						2	v	a Allan, Pl. xlvi , 7
2 - - 3 5	5	" " " "	"	"	"			2	v	b " Pl. II , 11
4 - - 1 7	"						Illegible	2	v	c " Pl. II , 13
1 - - - -	-	"				Plain	2	v	d " Pl. vi , 21	
3 - - - -	3	"					2	vi	a?	
- - - - -	1	" " " "					Illegible	2	vi	b " Pl. v , 19
- - - - -	1	" " " "	"	"	"			2	vi	b " Pl. v , 21
1 - - - - -	-	" " " "					2	vi	c " Pl. v , 21	
- - - - -	1	" " " "	"				2	vi	c? Pl. xxiv , 15 2 solar symbols	
1 - - - - -	-	" " " "			" ?		2	vi	?	
- - - - -	2	" " " "			" ?	"	2	vi	?	



No. of coins in hoard of:					Obverse	Reverse	B.M. classification				
326	99	132	535	1983			Class	Group	Variety		
-	-	-	1	-			2	VI	new	Pl.XXIV , 16	
1	-	-	4	28	" "		2	VII	a	Allan, Pl.XLII, 4	
7	2	-	-	1	" " " " "	indistinct	2	VII	a-d		
1	-	-	2	8	" " " " "		2	VII	b	" Pl.XLII, 13	
-	-	-	-	2	" " " " "		2	VII	b		
4	-	-	3	24	" " " " "	& indistinct	2	VII	c	" Pl.XLII, 12	
2	1	-	-	4	" " " " "	& prominent	2	VII	d	" Pl.XLII, 12	
1	1	-	-	27	" " " " "	& other symbols	2	VII	d		
-	-	-	-	4	" " " " "		2	VII	d		
-	-	-	-	2	" " " " "	& uncertain symbols	2	VII	d		
-	-	-	-	1	" " " " "	& other mark	2	VII	d		
-	-	-	-	1	" " " " "	& other marks such as	2	VII	d		
-	-	-	-	13			2	VII	f	" Pl.XLII, 16	
16	1	-	3	16		"		2	VII	g	" Pl.XLII, 17
2	1	-	4	3	" "	"	" + other stamps	2	VII	h	" Pl.X , 14
-	1	-	-	-	" " " "		2	VII	h		
3	-	-	2	2	"	"	& other mark.	2	VII	i	" Pl.XLII, 20
1	-	-	-	1	"	"	"	2	VII	j	" Pl.II , 21
3	-	-	1	1	"   " "		Illegible	2	VII	k	" Pl.X , 3



No. of coins in hoard of:						Obverse	Reverse	B.M. classification						
326	99	132	535	1983				Class	Group	Variety				
3	1	-	1	15			various stamps	2	VII	1	Allan, Pl. x, 5			
-	5	-	-	2		" - " "		2	VII	?				
-	1	-	-	-		" 	" 	Illegible	2	VII	new			
-	-	-	1	-		 "		" 	2	VIII	a	" Pl. x, 13		
-	-	-	-	1		" 	" 	"	2	VIII	b	" Pl. II, 14		
-	-	-	1	4		" 	 		Various stamps	2	VIII	c	Pl. xxiv, 17	
6	1	-	3	13		" 	" 	" "	2	VIII	d	" Pl. II, 20		
1	-	-	-	4		" 	" 	" "	2	VIII	e	" Pl. II, 12		
-	-	-	-	1		" 			Illegible	2	IX	a	Pl. xxiv, 18	
1	-	-	-	-		" " "	" 	?"	2	IX	e			
1	1	-	2	3		" 			indistinct marks	2	X	b	Allan, Pl. xiii, 25	
3	-	-	3	2		" " "			?" & Illegible	2	XI	b	St. symbol completed from coin. Pl. xxiv, 19	
59	27	1	62	383		- - - - -	" "					Badly worn & indistinct		
1	-	-	-	-		" " "			Illegible	2	new		Pl. xxiv, 23	
1	-	-	-	-		" " "			"	2	new		Pl. xxiv, 24	
-	1	1	-	3		" " "			"	2	new		Pl. xxiv, 20	
-	-	-	-	1			" "	"	"	2	new		Pl. xxiv, 25	
-	-	-	-	1		- - - - -		Plain	"	2	new		Pl. xxiv, 22	
-	-	-	-	2		" 			additional	4	new		Pl. xxiv, 21	
-	1	-	2	35		" 				uncertain.	6	1	a	Allan, Pl. viii, 5 & other



No. of coins in hoard of:-						Obverse	Reverse.	B.M. classification.			
326	99	132	535	1983				Class	Group	Variety	
-	-	-	-	-	9			6	I	b	Pl.XXIV , 26
-	-	-	-	-	4	" additional *	* & other stamps	6	I	c	Pl.XXIV , 27
-	1	-	-	-	-	"	"	6	I	c?	
-	-	-	-	-	10	"	ROR	6	I	d?	Allan, Pl.VIII , 14
-	-	-	-	-	2	" additional	"	6	I	d	
1	-	-	-	-	-	"	"	6	I	g	Pl.XXIV , 28
-	-	-	2	-	-	"	"	6	I	h	Allan, Pl.VIII , 21
-	-	-	-	1	-	"	"	6	I	?	
-	-	-	1	1	-	"	ROR "	6	I	new	Pl.XXIV , 29
1	-	-	-	1	-	"	"	6	I	new	Pl.XXIV , 30
-	1	-	-	-	-		"	6	II	b	
-	-	-	1	2	-	"	"	6	II	d	Pl.XXIV , 31
5	-	-	2	14	-	"	ROR	6	II	e or new	Pl.XXIV , 32
-	-	-	-	1	-	"	"	6	II	new	Pl.XXIV , 33
-	-	-	-	1	-	"	ROR	6	II	new	
1	-	-	-	-	-	"	"	6	III	a	Pl.XXIV , 34
-	-	-	-	4	-	"	"	6	III	a?	Pl.XXIV , 35
-	-	-	2	4	-	"	"	6	III	b	"
16	1	-	4	27	-	"	"	6	III	c	Allan, Pl.VIII , 8
-	-	-	-	1	-	"	ROR	6	III	d	Pl.VIII , 13
							Various stamps				



PLATE XXXIV

No. of coins in hoard of:-	Obverse	Reverse	B.M. classification								
			Class	Group	Variety						
326	99	132	535	1983							
-	-	-	1	7			Various stamps	6	III	e	Pl.xxIV ,36
1	-	-	-	1	" " "		"	6	III	f	Allan, Pl.viii, 24
1	-	-	3	3	" " "		"	6	III	g	" Pl.vii, 12
-	-	-	-	7	" " "		several punches including S  &	6	III	c or new	Pl.xxIV ,37
-	-	-	1	1	" " "		Illegible several punches including	6	III	new	Pl.xxIV ,38
-	-	-	-	6	" " "			6	III	new	Pl.xxIV ,39
-	-	-	-	1	" " "			6	III	new	Pl.xxIV ,40
1	-	-	-	1	"		indistinct mark	6	III	new	Pl.xxIV ,41
2	1	-	12	"			& other stamps	6	IV	a	Allan, Pl.x , 6
2	1	-	1	4	" " "		various marks	6	IV	b	Pl.xxIV ,42
-	-	-	-	1	" " "		one indistinct mark.	6	IV	d	Pl.xxIV ,43
-	-	-	1	"			"	6	IV	e	Pl.xxIV ,44
-	-	-	-	1	" " "		"	6	IV	f	
-	-	-	-	1	" " "		"	6	IV	new	Pl.xxIV ,45
-	1	-	2	46	"		several punches including *	6	v	a	Allan, Pl.vii, 5
-	-	-	-	1	" additional. B+	"	several punches	6	v	a	Pl.xxIV ,46
-	-	-	-	2	" " "		"	6	v	b	Pl.xxIV ,47
-	-	-	4	6	"		"	6	v	e	Pl.xxIV ,48
-	-	-	-	6	" " "		several punches including *	6	v	new	Pl.xxv ,1
-	-	-	-	1	" " "		* "	6	v	new	Pl.xxv ,2



No. of coins in hoard of:	Obverse					Reverse	B.M. classification				
	326	99	332	535	1983		Cross	Groove	Spur(s)		
- - - - - 1						Various stamps including sun, tree, elephant.	6	v	new	Pl.xxv , 3	
4 1 - - 4 16						Various stamps	6	vi	a	Allan, Pl.vii, 18	
- - - - - 8	" " "					ROR	Various stamps	6	vi	b	Pl. ix , 23
- - - - - 1	" " " additional "					" "	Various stamps including O & flower	6	vi	b	" Pl. viii, 16
- - - - - 2	" " " "					" "	uncertain Various stamps including fish	6	vi	c	" Pl. viii, 16
- - - - - 2	" " " "					" "	uncertain Various stamps including fish	6	vi	?	" Pl. x , 16
- - - - - 2	" ? additional " "					" "	uncertain Various stamps including sun	6	vii	a	" Pl. x , 16
1 - - - - 7						" "	Various stamps including ROR	6	vii	e?	Pl. xxv , 4
- - - - - 1						" "	Various stamps including ROR	6	vii	new	Pl. xxv , 5
- - - - - 2						" "	Various stamps including ROR	6	vii	new	Pl. xxv , 6
2 4 - 2 98	- - - - -					- - - - -	INDISTINCT & BADLY WORK OUT	6			Pl. xxv , 8 and D. PARSHAD JPASB. 1934 Num. Suppl. Pl. 32
- - - - - 18							Various stamps including sun, tree, elephant, ROR, star	6	new		Pl. xxv , 8 and D. PARSHAD JPASB. 1934 Num. Suppl. Pl. 32
- - - - - 5	" " " "					" "	" "	6	"		Pl. xxv , 7
- - - - - 4	" " " "					ROR	Various punches	6	"		Pl. xxv , 7
- 1 - - - 2	" " " "						" "	6	"		Pl. xxv , 27
- - - - - 1	" " " "						" "	6	"		Pl. xxv , 9
- - - - - 9						ROR	ROR, sun, tree, elephant, star	6	"		Pl. xxv , 9
- - - - - 2	" " ROR " "					" "	Various punches	6	"		Pl. xxv , 10
- - - - - 3	" " ROR " "					" "	" "	6	"		Pl. xxv , 11
- - - - - 4	" " ROR " "					" "	" "	6	"		Pl. xxv , 12



no. of coins in hoard of:						Obverse	Reverse	S.M. classification			
326	99	132	535	1983				Class	Stamp	Variety	
-	-	-	-	-	2		Various stamps including ①	6	new	Pl.XXV , 13	
-	-	-	-	-	1		Illegible	6	"		
-	-	-	-	-	4		Several bunches including ②	6	"	Pl.XXV , 14	
-	-	-	-	-	2		"	6	"	Pl.XXV , 26 and JPASB 1934 D.PARSHAD PI X	
-	-	-	-	-	1		Various stamps including ③	6	"		
-	-	-	-	-	1		Various stamps including ④	6	"	Pl.XXV , 15	
-	-	-	-	-	2		Illegible	6	"		
1	-	-	-	-	1		"	6	"	Pl.XXV , 17	
-	-	-	-	-	3		Various stamps including ⑤	6	"	Pl.XXV , 25	
-	-	-	-	-	1		Various stamps including ⑥	6	"		
-	-	-	-	-	1		Illegible	6	"		
-	-	-	-	-	1		Various stamps including ⑦	6	"	Pl.XXV , 24	
-	-	-	-	-	1		uncertain	6	"	Pl.XXV , 23	
-	-	-	-	-	2		"	-	-	Pl.XXV , 10 SEE D.PARSHAD JPASB 1934.	
-	-	-	-	-	1		Plain	-	-	Pl.XXV , 16	
-	-	-	-	-	1		Various stamps	-	-	Pl.XXV , 21	
-	-	-	-	-	1		"	-	-	Pl.XXV , 20	
-	-	-	-	-	1		"	-	-	Pl.XXV , 22	
-	-	-	-	-	1		"	-	-	Pl.XXV , 19	
-	-	-	2	-		spurious copper coins plated with silver					
-	-	-	39	-		Not treated; bear cloth impression					



